# UNCLASSIFIED

# AD NUMBER AD864887 **NEW LIMITATION CHANGE** TO Approved for public release, distribution unlimited **FROM** Distribution authorized to U.S. Gov't. agencies and their contractors; Administrative/Operational Use; DEC 1969. Other requests shall be referred to the Army Electronics Command, Attn: AMSEL-BL-FM-T, Fort Monmouth, NJ 07703. **AUTHORITY** USAEC, per ltr dtd 23 Sep 1971



# RESEARCH AND DEVELOPMENT TECHNICAL REPORT ECOM-0280-3

SIMULATION RESEARCH TO DEVELOP

OBJECTIVE METEOROLOGICAL

PREDICTION CAFABILITY

#### SEMI-ANNUAL REPORT

Ву

William H. Clayton, Principal Investigator Tom E. Sanford, Co-Investigator

December 1969



# ECOM

UNITED STATES ARMY ELECTRONICS COMMAND - FORT MONMOUTH, N.J.

Contract DAAB07-68-C-0280

DEPARTMENTS OF METEOROLOGY AND OCEANOGRAPHY

TEXAS ARM UNIVERSITY

Callege Station, Texas 77843

Reproduced by the CLEARINGHOUSE for Federal Scientific & Technical Information Springfield Va. 22151

#### DISTRIBUTION STATEMENT

This document is subject to special export controls and each transmittal to foreign governments or foreign nationals may be made only with prior approval of CG, U. S. Army Electronics Command, Fort Monmouth, New Jersey, ATTN: AMSEL-BL-FM-T

237

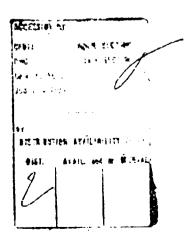
#### NOTICES

#### **Disclaimers**

The findings of this report are not to be construed as an official Department of the Army position, unless so designated by other authorized documents. The citation of trade names and names of manufacturers in this report is not to be construed as official Government indorsement or approval of commercial products or services referenced herein.

#### Disposition

Destroy this report when it is no longer needed. Do not return it to the originator.



Technical Report ECOM-0280-3

December 1969

# SIMULATION RESEARCH TO DEVELOP OBJECTIVE METEOROLOGICAL PREDICTION CAPABILITY

Third Semi - Annual Report

15 May 1969 to 16 November 1969

Report No. 3

Contract No. DAABO7-68-C-0280

DA Project No. 1TO.6211.A126.05

Project 582

Reference 69-13-T

Prepared by

William H. Clayton, Prinicpal Investigator and Tom E. Sanford

TEXAS A & M RESEARCH FOUNLATION

College Station, Texas

For

U. S. Army Electronics Command, Fort Monmouth, New Jersey

#### DISTRIBUTION STATEMENT

This document is subject to special export controls and each transmittal to foreign governments or foreign nationals may be made only with prior approval of CG, U. S. Army Electronics Command, Fort Monmouth, New Jersey Attn: AMSEL-BL-FM-T

#### **ABSTRACT**

In order to assess further the system of equations currently employed for simulating the atmospheric friction layer, four sets of data, each 12 hours in length, were collected on successive days in August 1969 at Dugway Proving Ground, Utah. Solutions of the equation system for these initial conditions as well as comparisons of the solutions with observed data are contained in this report. The results derived from these solutions corroborate those obtained from the solutions of eleven test cases assembled from data collected with the Dallas Tower Network.

#### ACKNOWLEDGEMENT

The research reported herein has been performed under Contract DAABO7-68-C-0280, sponsored by the U.S. Army Electronics Laboratories at Fort Mouse ath. New Jersey; however, personnel and equipment support for the General Purpose Analog Computer facility utilized in this research is also provided by the Research Council of Texas A&M University.

# TABLE OF CONTENTS

		Pa	ge
Abstr	act		ii
Ackno	wledg	gement	11
List	·f Ta	bles	v
I.	Low	Level Meteorological Model Evaluations	1
	Λ.	Introduction	1
	В.	General Geographical Features and Synoptic Weather Conditions	7
		1. Geographical Features of the Dugway Area	7
		2. Prevailing Synoptic Weather Conditions	8
	c.	Data Collection and Processing	9
	D.	General Purpose Analog Computer Solution Formats.	11
-	E.	General Purpose Analog Computer Solutions	16
		1. General Remarks	16
		2. Computer Solutions	19
II.		essment of the Solutions and Initial Data	21
III.	Engi	ineering Modifications for the GPAC 2	26
Dist	ribut	ion List 2	29
DD Fo	nrm 14	473	24

# LIST OF TABLES

																			Page
Table	1.	Tape	Lo3	-	Data	Set	DPC01	•	•	•	•	•		•		•	•	•	19
Table	2.	Tape	Log	_	Data	Set	DPG02	•	•		•	•	•	•	•		•	•	82
Table	3.	Tape	Log	-	Date	Set	DPG03					•	•	•	•		•	•	141
Table	4	Tena	Log	_	Data	Set	DPC04												173

٠,

 Evaluation of the System of Equations which Simulate the lower 1,000 Meters of the Atmosphere

#### A. Introduction

Evaluation of the present system of equations is being accomplished in three phases. In the initial phase, the equations were evaluated on the basis of reasonable input values rather than actual observed data in order to assess qualitatively the simulation procedures employed, the physical reality of the system of equations, and the proper scaling of these equations on the General Purpose Analog Computer (GPAC). Such assessment utilizing representative mean data gave reasonable results for solutions obtained to the equations on the GPAC; therefore, the second phase of evaluation was initiated. This phase consisted of the application of the system of equations to actually observed data. In order to implement this evaluation, data were collected at Cedar Hill. Texas for a wide range of meteorological environments extending from steady state conditions in spring, summer and winter to rain and fog situations as well as high winds in both winter and summer. This wide range of meteorological environments was chosen in order to test adequately the various circuits involved which solve the present system of equations.

In order to test adequately the system of equations using the present simulation, data of high quality must be employed. For this reason, Zata from the Dallas Tower Network were selected for establishing the eleven test cases. Several months were required for analyzing the meteorological situations and for pre-

paring the data for solution on the GPAC. This process of data preparation was a lengthy one as all computations were made on a desk calculator. Numerous checking procedures were employed to avoid human errors, but due to the fact that the data were being processed by hand, occasional errors crept into the results.

In other to avoid these human errors as well as to reduce the time required for preparing a case for solution on the C'AC, a computational program was written in Fortran IV for the IBM 365/65 digital program which would prepare the data for input for the GPAC. Initially this program was written in the same manner in which hand computations had been employed previously. There was a two-fold purpose in writing the program in this manner. First the program necessarily, was a lengthy and complex one; therefore, the calculations required to check the results of the digital program would be quite involved and time consuming. Since these calculations previously had been done eleven times, these results were recognized as being the best source for testing the digital program. The data for the first case, Case 1-A, was employed as input to the digital program and the results compared with the hand computed values for this case. The computations were checked to determine which value was correct, the value computed by hand or the value computed by the digital program. Differences in the results obtained by hand computation and the digital program were resolved by making corrections to the digital program or in correcting the hand computed values. When all the results of the hand agreed in every respect then the data for the remaining ten cases was used as input for the program and results computed for these cases. These results then were compared with the hand computed values to further test the validity of the digital program.

The second purpose in writing the program in this manner, was solely to make a check on manual procedures and the manual calculations employed in the preparation of these eleven test cases. This digital computer program was designed specifically for the preparation of data obtained from the Dallas Tower Network and from synoptic charts. This program served mainly for diagnostic purposes and as a stepping-stone to a more general processing digital program. On the basis of the data processed by this program the eleven test cases were solved on the GPAC and the results analyzed.

The programming technique on the GPAC for the solution of these equations allows quite a considerable flexibility in conditions under which the solutions may be obtained. For example, two soil models are available: Soil Model E, and Soil Model A. Soil Model B is a simplified model in which the soil is considered as a homogeneous mass where Soil Model A is a stratified system. The momentum exchange coefficient  $K_{m,8}$  and the integral exchange coefficient  $D_8$  may be held fixe, throughout the solution interval or they may be allowed to vary with time in accordance with the variations of wind speed, temperature, and moisture

gradients near the surface of the earth. Wind, temperature, and vapor advection may be held constant throughout the solution interval or they may be allowed to vary with time in accordance with the variations of the u and v components of the wind. The surface pressure gradient also may be held fixed during the solution interval or it may be allowed to vary linearily between an initial value and a final value. Any latitude or initial time may be chosen for the solution as well as any time interval. In the solution shown in this report, time intervals of 1, 2, 6, and 12 hours have been chosen.

Results obtained from the solution of the eleven test cases obtained from the Dallas Tower Network have been very encouraging and have warranted further evaluation of the system of equations. For such evaluation, duta of a sufficiently high quality must be available for both initial input to the GPAC and verification of the solutions obtained from it. The basic question arose as to what source to employ for collection of data for further testing of the present system of equations. The most likely area for the collection of suitable data appeared to be Dugway Proving Ground since they were well-equipped to collect data from instrumented towers and also had available radiosonde equipment on location. This site, therefore, was chosen because of the mutual interests in obtaining reliable future estimates of winds, temperatures, and vapor pressures within the boundary layer and because of the available facilities which are quite extensive. These facilities in-

cluded a network of instrumented towers for obtaining measurements of the meteorological variables in the lowest 100 meters, radio—sonic equipment for obtaining winds, temperatures, and dew-point temperatures up to heights of 1000 meters, and operational weather station provided by the U.S. Air Force with trained enalysts and forecasters to prepare the necessary meteorological charts and an electronic data processing system which can provide 30 minute averages of the meteorological variables obtained on the instrumented towers.

In anticipation of the extension of testing of the system of equations for the Dugway area, a more general computer program was recognized to be required for the processing of field data; therefore, the Fortran IV digital program was expanded to a more general form designed to accept data from standard field sources and convert this data into suitable input form for the GPAC and the Low Level Meteorological Simulator (LLMS) and simultaneously provide static check voltages for both simulators.

In order to initiate the notual cooperative program with Dugway, personal contact with representatives from Dogway was established through mutual familiarization visits. Dugway representatives were briefed on the design, solution procedures, and data input for solution of the system of equations presently employed for simulating the lower kilometer of the atmosphere. On similar familiarization trips by project personnel to Dugway, project personnel were briefed on the facilities available and discussed problems which were

expected to be ecountered in data collection and evaluation at Dugway.

In the Spring of 1969, Captain C. L. Hall took responsibility for the Dugway-Texas A&M cooperative effort. Close lisison was maintained between Texas A&M and Dugway Proving Ground and the necessary instrumentation was installed at Dugway for collection of meteorological input data for the GPAC and the LLMS. Cambridge dev-point temperature and dry-bulb temperature instruments were installed in the towers and suitable soil probes were built and installed near the base of the tower. These probes were installed in late spring and tested for uniformity in temperature readings. Very high salt content and resulting high conductivity of the soil caused difficulties in obtaining suitable measurements with the soil probes, but soon the probes were adequately insulated so that uniformity of temperatures were obtained.

On June 3, 13, 20, 27 attempts were made to collect data at Dugway for input to the GPAC and LLMS. In July, Captain Hall visited Texas A&M bringing these data with him for processing; however, the data turned out to be insufficient for the establishment of text cases. The chief difficulty lay in the fact that no reference temperature was available on the tower - only temperature differentials on the tower were available. While Captain Hall was at Texas A&M the various aspects of the project were discussed with him so as to give him a better understanding of the overall view of the project and its purposes. The data collection procedures and analyses, coding of data, and transmittal of the data was thor-

oughly discussed with Captain Hall and the method of solving the problems on the GPAC was demonstrated to him.

At the termination of his visit to Texas A&M, plans were made for Dr. Tom E. Sanford to visit Dugway in late August to assist in data collection activities at Dugway. This period provided the meteorological division at Dugway sufficient time to set up the necessary hardware for collection of the test data.

The normal time interval for averaging data readings at Dugway was 2 1/2 minutes. This time interval was totally inadequate for simulation testing. Therefore, new test specifications were required for the digital data processor employed at Dugway for obtaining time means of the data.

All preparatory work for data collection was completed by the first week in August and Captain Hall notified the project personnel to this effect. During the week of August 10, Dr. Sanford visished Dugway and participated in the collection and processing of data for the establishment of test cases.

- B. General Geographical Features and Synoptic Weather Conditions
  - 1. Geographical Features of the Dugway Area

The geographical area in which Dugway is located offers a atriking contrast to the geography of the Dallas area. The Dallas area has an elevation of from 700 to 800 ft and the terrain is characterized by slow rolling hills. In contrast, Dugway is located in a relatively flat valley at an elevation in excess of 4,000

for a grounded by sharp mountain peaks rising in some cases as much as 5,000 ft above the base of the valley. The area is characterized by little vegetation with only a few scrubby trees growing on the mountain slopes. Wind flow is controlled mainly by local effects made up of mountain and valley breezes; therefore, winds are highly variable in both speed and direction. The soil has a high selt content and is covered with a fine costing of losss. This very fine dust shifts easily with the winds and piles up in dense which slowly move across the soil surface.

#### 2. Prevailing Synoptic Weather Curditions

Synoptic conditions that prevailed during the time date was collected were rather static. On August 12, a wash cold from approached Dugway from the northwest. A frontal passage occurred at approximately 0800 MDT. The front was preceded by opercast couditions accompanied by light rain showers seattered throughout the area. These rain showers preceded the front and the sky cleaned rapidly from 0900 to 1200 MDT. A weak high pressure area moved in from the northwest and passed to the northwest of Dugway. The sky was clear and the winds remained light for the next three days. A weak ridge orientated north-northeast over Utah at 700 millibars slowly moved toward the area. The high pressure center moved over Utah and into southwestern Colorado. The last three days of observation were characterized by weather which was clear and winds which were light and variable, rather typical static summertime conditions.

COMPAND OF THE PARTY

#### C. Data Collection and Processing

In order that project requirements be understood by Bugway personnel, a technical manual was prepared that specified the type of data to be collected for evaluation under the present system of equations and which outlined the manner in which these data were to be coded and transmitted to Texas A&M. This manual is Technical Report ECOM-02286-F2, Final Report, Volume 15, Project 459, Contract No. DA28-043AMC-02286E. It covers all phases of data collection and preparation procedures required for processing the data and transmitting it to Texas A&M. This manual outlines data preparation procedures for input data to the modified Fortran IV 188 369/65 data preparational program for the GFAC.

This modified digital program, F2, was designed with operational aspects in mind. The program has been designed to be as flexible as possible in handling given input data. These data may occur in different units and at any heights. For example, heights may be reported in meters, inches, or feet; wind speeds in knots, miles per hour, or meters per second; and temperature in degrees Centigrade or degrees Fahrenheit. Atmospheric moisture content may be reported in terms of the dew-point temperature, the vapor pressure, or the relative humidity. The values of each of these variables may be accepted for up to 12 levels.

In accordance with the procedures outlined in this manual, data were collected at Dugway on four successive days for a continuous 12 hr period at hourly intervals. All observations were

taken in the daylight hours extending from 0600 to 1800 MDT. addition, upper air observations were provided by Rawinsonde observers who collected data at 0600 hours, 0700, 0800, 1200, and 1800 hours for verifications of the simulations at 1, 2, 6, and 12 hour time intervals. The Rawinsonde site was located approximately 12 miles from the site of the instrumented tower. In order to support these observation and complete the input data, the air weather service detachment personnel stationed at Dugway plotted and analyzed all of the synoptic charts required to complete the cases and extracted the data from these charts. Although these data were not ideal input values for the LLMM they were accepted as sufficient for the establishment of test cases. These 30 minute averages of wind speed and direction were taken at seven levels on instrumented toners. Dry-bulb and dew-point temperature were obtained at two levels on the tower. The averaging period began 15 minutes before the hour and ended 15 minutes after the hour.

Some data processing was done, however by project personnel. The major part of this processing consisted of the extraction of soil temperatures from Esterline-Angus strip charts and the computation of the 30 minute averages of these temperatures. Of course, this processing introduces some subjectivity into the data collection and processing but hopefully the degree of subjectivity is not significant. After data collection had terminated and all hand processing was completed the data was punched into IBM punch cards for input to the F2 IBM 360/65 digital program which computes in-

put values for the GPAC and LLMS. These four days of tast data not only provided tests for the LLMM but also provide data for testing the F2 digital program in an operational sense. The LAMM was then placed on the GPAC in order to compute solutions for 1, 2, 6, and 12 hours for these four data sets. The following pages of this report contain the solutions obtained on the GFAC for these four data sets and their comparisons with the data observed on these four days at Dugway.

Soil temperature measurements were made at 3 cm, 12.5 cm, 25, 30, 100, and 200 cm depth and were recorded on strip charts. All other data taken from the instrumented towers were collected by the electronic data processing unit at Fugway. This unit also computed 30 minute averages of winds, temperatures, and vapor pressures observed on the towers. This averaging process reduced almost to the minimum data processing accomplished by hand. The fundamental idea in these tests was that data would be collected and processed independent of project personnel in order to provide complete objectivity on their part.

D. General Purpose Analog Computer Solution Formats
In order to evaluate the effects of particular solution circuits
of the LLMM much case was solved for 1, 2, 6, and 12 hr time intervals
under a variety of assumptions. The data for each case is presented
in three parts: a tape log which contains the tape number, forecast
interval, and conditions under which the solution was run and any
modifying assumptions which were necessary to solve the equations

with the presently scaled model; a set of initial conditions giving the initial input values of the variables for comparison data collected for 1, 2, 6, and 12 hrs after the initial time; and results of the GPAC solutions. Abbreviated headings are used for the columns in the tape In order to understand these headings, refer to Table 1, Page 19. The first column in this table shows the individual tape numbers. The second column contains the time interval for the solutions expressed in hours. Column three, headed SM, refers to the soil model that is selected for the solution. Two choices are available: Soil Model A, the stratified soil model; or Soil Model B, the simplified model. The column headed  $K_{m,8}$  is the momentum exchange coefficient at 8 m. This column may contain either an F or a V. F indicates that the initial value of  $K_{m.8}$  is set into the  $K_{m.8}$  amplifier and is held constant throughout the solution period. The letter V in this column indicates that the momentum exchange coefficient varies with the wind and the surface temperature and vapor pressure gradients. Similarily, the column headed  $D_{Q}$  contains either an F or a V. The F indicates that the integral exchange coefficient Dg is held fixed at the initial value throughout the solution period. The letter V in this column indicates that the integral exchange coefficient is allowed to vary with the wind at 8 m and the temperature and vapor pressure gradients between the surface and 8 m. The column headed SCG represents the high contour gradient of the surface pressure level. This column may contain either an A or an F. An A in this column indicates that the surface contour grade is allowed to vary

from an initial value linearily to a final value. An F in this column indicates that the surface contour gradient is held fixed throughout the solution interval at its initial value. The column headed ADV indicates the manner in which the advection is applied during the solution. Either an N or an F may appear in this column. An F in this column indicates that the advection of wind, temperature. and vapor pressure is held fixed at the initial value throughout the solution period. An A indicates that the gradients of the wind, temperature, and vapor pressure are held fixed throughout the soiution period at their initial values but that the advection is allowed to vary with the wind. The column headed GEO may contain either an O or an I. An I in this column indicates that the wind vector at the 1000 m level is coupled to the geostrophic wind. An O in this column indicates that the 1000 m level is not coupled to the geostrophic wind. Any non-normal conditions under which a particular tape was run is indicated in the remarks column unless it applies to the case as a whole. In that event pertinent remarks occur in the following paragraphs.

Following the tape log are two pages which contain the initial conditions for the particular case. The initial soil temperature profile, the soil parameters, the radiation parameters, the local time, and the horizontal gradients of temperature and vapor pressure are shown on the first page. The second page contains the initial profiles of wind, temperature, and vapor pressure from 8 m to 1000 m height and the wind advection terms alpha and beta at 200, 600, and

1000 m. The surface contour gradient terms at the initial time, indicated as 0 hr and the four forecast hours of 1, 2, 6, and 12 are also given on the second page. The azimuth angle for the surface contour gradient terms is measured clockwise from true north and the magnitude of the surface contour gradient is given in feet per 100 km.

Four pages of comparison data follow the two pages containing the initial conditions. These four pages contain the comparison data for 1, 2, 6, and 12 hrs after the initial time. Vertical profiles of the east-west and north-south complements of the wind indicated respectively as u and v are given for heights from 8 m through 1000 m. In addition, the geostrophic value is shown. Temperature profiles are given for 2 m through 1000 m, and vapor pressure profiles for 8 m through 1000 m. Soil temperature measurements are given at all model levels from 3 cm below the soil surface, indicated by a minus zero point, to a depth of -2 m. On these sheets the surface shearing stress  $\tau_0$ , the net radiation  $R_0$ , the surface convective heat flux  $q_{e,0}$ , and the surface exaporative heat flux  $q_{e,0}$ , and the soil heat flux  $q_{e,0}$ , and the integrated evapotranspiration E are not measured inputs so their values are indicated by XXXX.

The remaining pages for a particular data set are the GPAC output solutions obtained for the 1, 2, 6, and 12 hr periods. Three pages contain a data set of four tapes. The first page contains the velocity components; the second page, the air temperature and vapor pressure; and, the third page contains various miscellaneous variables such as soil temperature, the wind speed at 2 and 8 m, the surface

energy terms, the surface shearing stress and the integrated evapotranspiration. For an explanation of the data sheets for the CPAC output parameters refer to Pages 27 thru 29 which show the 12 hour solutions for Case DPGO1 as recorded on tapes 1, 2, 3, and 4. The first line of the first page contains the value of the momentum exchange coefficient at 8 m obtained by the GPAC at the end of the 12 hr solution interval. The next line contains the tape numbers of the four tapes. In this case, tape numbers 1, 2, 3, and 4. Forecast intervals for each tape occurs on the following line in the column in which the tape number appears. In this particular case, tapes 1, 2, 3, and 4 all are solutions for 12 hr intervals. Note that the value for the momentum exchange coefficient at 8 m, indicated by a K, the tape number, and the forecast intervals are shown centered between two columns which appear below the forecast interval. These two columns are headed GFAC and DIFF. The column headed GPAC contains the solution values obtained on the GPAC and the second column, headed DIFF, is the algebraic difference between the GPAC value and the value gives in the comparison data. The column to the extreme left contains the applicable level for the particular variables expressed in meters. For the u and v wind components, GEO again refers to the geostrophic value. In the solutions of the winds, if the value obtained by the GPAC falls in a different quadrage from that shown in the comparison data an asterisk follows the GPAC value. Positive values of the u components of wind indicate that the wind is blowing from west to east. Negative values of the u component

indicate that the wind is blowing from east to west. Similarily, positive values of the v component indicate that the wind is blowing from south to north and negative values of the v component indicate that the wind is blowing from north to south.

On the second and third pages of the GPAC output data, the tape numbers and forecast intervals are repeated by the exchange coefficient values are not. In this case, as with the winds, differences between the solutions obtained on the GPAC and the comparison data are computed by substracting the comparison data from the GPAC data; therefore, positive values indicate that the GPAC value is greater than the comparison value and negative differences indicate that the GPAC value is less than that of the comparison value. The symbol XXX in the difference column indicates that the differences could not be obtained due to the fact that comparison data are not swalleble.

#### E. General Purpose Analog Computer Solutions

#### 1. General Remarks

The four initial sets of data collected at Bugway will be referred to as DPGO1, DPGO2, DPGO3, and DPGO4.

#### a. Data Set DPG01

In order to place the GPAC in RESET mode for this case, slight adjustment of some of the input variables was necessary. In particular, the east-west component of the wind at 8 m was changed to 1 m/sec and the north-south component was changed to 4.87 m/sec. In addition, the gradients of vapor pressure were too extreme for

the present scaling; therefore, minor adjustments to the input data were required. The vapor pressure at 100 m was changed from 17.07 mh to 14.88 me and the vapor pressure at 200 m was changed from 17.69 mb to 16.26 mb.

#### b. Dato Set DPC01

In order to place the GPAC in the RESET mode for this case, the 8 m wind speed had to be increased. The u component of the 8 m wind speed was changed from 2.14 m/sec to 4.18 m/sec. The v component of the 8 m wind speed was increased from 2.38 m/sec to 4.39 m/sec.

#### c. Pats Set DPG03

In order to get the computer in RESET for Data Set DPG03, the u component of the wind at 8 % was increased from 2.85 m/sec to 4.63 m/sec. The v component of the wind speed was increased from 2.66 m/sec to 3.75 m/sec. In addition, the temperature gradient between 8 m and 32 m was too large for the present scaling of the system of equations; therefore, the temperature at 8 m was decreased from 27.5°C to 19.5°C.

#### d. Data Set 07904

Similar problems were encountered with Data Set DPCO4 as were encountered with the first three data sets. The S m wind speed was extremely small and the gradients of the vapor pressure were very large. These extreme values required adjustments in the 8 m wind speed and in the vapor pressure gradient between 32 and 100 m. In particular, the surface u component of the 8 m wind speed was in-

TAPE NO.	FCST INT	SK	KM8 D8	SCG	ADV	GEO	REMARKS
ì.	12	A	v	A	N	0	Nane
2.	12	Ā	v	A	N	1	NONE
3.	12	Ā	v	A	F	1	NGNE
4.	12	Â	v	Ā	F	0	NONE
5.	12	Ä	¥	Ā	F	Ð	NONE
6.	12	5 5	v	A	F	1	NONE
7.	12	8	v	A	N	1	NONE
8.	12	£	Ÿ	A	N	O	NONE
11.	12	Ä	V	F	F	I	NONE
12.	12	A	V	F	F	U	NONÉ
13.	12	b	V	F	F	0	NONE
14.	12	E	V	F	F	1	NONE
25.	12	B	F	F	N	Ũ	NONE
26.	12	B	F	F	N	I	NONE
27.	12	ь	F	F	F	1	NONE
28.	12	8	F	F	F	0	NUNE
29.	12	Ā	F	F	F	O	IONE
30.	12	A	F	F	F	I	NUNE
31.	12	A	F	F	N	1	NONE
32.	12	A	F	F	N	0	NONE
34.	6	A	٧	A	N	0	NONE
35.	6	A	V	A	N	I	NONE
36.	6	A	٧	A	F	ì	NUNE
37.	6	A	٧	A	F	<b>D</b>	NONE
38.	6	В	٧	A	F	Û	NONE
39.	6	В	¥	A	F	ı	NONE
40.	b	b	٧	Á	N	I	NUNE
41.	6	8	٧	A	N	O	NONE
44.	6	A	٧	F	F	I	NONE
45.	6	A	V	F	F	O	NONE
46.	5	8	V	F	۴	O	NONE
47.	6	В	\	F	F	1	NONE
58.	6	В	F	F	N	O	NONE
59.	6	В	F	F	N	I	NONE
60.	6	В	F	F	F	1	NONE
61.		В	₹.	F	F	Ü	NONE
67.		A	٧	A	N	0	NONE
68.		A	٧	A	N	1	NONE
69.		A	٧	A	F	I	NONE
70.		A	V	<b>A</b>	F	0	NONE

CASE DPG 1 TAPE LUG

71. 2 B V A F U NONE 72. 2 B V A F I NUNE 73. 2 B V A N I NUNE 74. 2 B V A N U NUNE 77. 2 A V F F I NUNE 78. 2 A V F F U NONE 79. 2 B V F F U NONE 80. 2 B V F N I NUNE 81. 2 B V F N U NUNE 82. 2 B V F N U NUNE 84. 2 A F A F U NUNE 85. 2 A F A F U NUNE 86. 2 B V F N U NUNE 87. 2 A F A F U NUNE 88. 2 A F A F I NUNE 100. 1 A V A N U NUNE 101. 1 A V A N U NUNE 102. 1 A V A F I	<b>S</b>
72. 2 B V A F I NUNE 73. 2 B V A N I NUNE 74. 2 B V A N U NUNE 77. 2 A V F F I NUNE 78. 2 A V F F U NONE 79. 2 B V F F U NONE 80. 2 B V F F I NONE 81. 2 B V F N I NONE 81. 2 B V F N I NUNE 82. 2 B V F N U NUNE 84. 2 A F A F U NUNE 85. 2 A F A F I NUNE 86. 2 A F A F I NUNE 87. 2 A F A F I NUNE 88. 2 A F A F I NUNE 100. 1 A V A N U NUNE	
73. 2 B V A N I NUNE 74. 2 B V A N U NUNE 77. 2 A V F F I NUNE 78. 2 A V F F U NONE 79. 2 B V F F U NONE 80. 2 B V F F I NONE 81. 2 B V F N I NUNE 82. 2 B V F N C NONE 87. 2 A F A F U NUNE 88. 2 A F A F I NONE 100. 1 A V A N U NUNE 101. 1 A V A N I NUNE	
74. 2 B V A N U NUNE 77. 2 A V F F 1 NUNE 78. 2 A V F F U NONE 79. 2 B V F F U NONE 80. 2 B V F F I NONE 81. 2 B V F N I NUNE 82. 2 B V F N C NONE 87. 2 A F A F U NUNE 88. 2 A F A F I NONE 100. 1 A V A N U NUNE 101. 1 A V A N I NUNE	
77. 2 A V F F I NUNE 78. 2 A V F F U NONE 79. 2 B V F F U NONE 80. 2 B V F F I NONE 81. 2 B V F N I NUNE 82. 2 B V F N C NONE 87. 2 A F A F U NONE 88. 2 A F A F I NONE 100. 1 A V A N U NUNE 101. 1 A V A N I NUNE	
78. 2 A V F F U NONE 79. 2 B V F F U NONE 80. 2 B V F F I NONE 81. 2 B V F N I NUNE 82. 2 B V F N G NONE 87. 2 A F A F U NONE 88. 2 A F A F I NONE 100. 1 A V A N U NUNE 101. 1 A V A N I NONE	
79. 2 B V F F U NONE 80. 2 B V F F I NONE 81. 2 B V F N I NUNE 82. 2 B V F N G NONE 87. 2 A F A F U NONE 88. 2 A F A F I NONE 100. 1 A V A N U NONE 101. 1 A V A N I NONE 102. 1 A V A F I NONE	
80. 2 B V F F I NONE 81. 2 B V F N I NUNE 82. 2 B V F N C NUNE 87. 2 A F A F U NUNE 88. 2 A F A F I NUNE 100. 1 A V A N U NUNE 101. 1 A V A N I NUNE 102. 1 A V A F I NUNE	
81. 2 B V F N I NUNE 82. 2 B V F N C NUNE 87. 2 A F A F U NUNE 88. 2 A F A F I NUNE 100. 1 A V A N U NUNE 101. 1 A V A N I NUNE 102. 1 A V A F I NUNE	
82. 2 B V F N C NUNE 87. 2 A F A F U NUNE 88. 2 A F A F I NUNE 100. 1 A V A N U NUNE 101. 1 A V A N I NUNE 102. 1 A V A F I NUNE	
87. 2 A F A F U NUNE 88. 2 A F A F I NUNE 100. 1 A V A N U NUNE 101. 1 A V A N I NUNE 102. 1 A V A F I NUNE	
88. 2 A F A F I NUNE 100. 1 A V A N U NUNE 101. 1 A V A N I NUNE 102. 1 A V A F I NUNE	
100. 1 A V A N U NUNE 101. 1 A V A N I NUNE 102. 1 A V A F I NUNE	
101. 1 A V A N I NONE	
102 1 A V A F I NUNZ	
103. 1 A V A F U NONE	
NO.	
104. 1 B V A F 2 NONE	
106. 1 B V A N I NONE	
197. 1 6 V A N O NUNE	
108. 1 A V F N U NONE	
109. 1 A V F N I NUNE	
110. 1 A V F F 1 NUNC	
PLUMIZ.	
Table 1	
112. 1 B V F F I NONE	
114. 1 8 V F N J NONE	
115. 1 B V F N U NUNE	

# DPG 01 INITIAL CONDITIONS - 0400C 12 AUGUST 1969 (page 1 of 2 pages)

## SOIL PARAMETERS

$$T_0' = 13.30 \, ^{\circ}C$$
  $T_{-1}' = 19.11 \, ^{\circ}C$   $\sqrt{\mu\lambda} = 0.036 \, \text{cal/cm}^4 \text{deg}^2 \, \text{sac}$ 

$$T'_{-1/8} = 24.56$$
 °C  $T'_{-2} = 18.89$  °C  $Z_0 = 2.0$  cm

$$T_{-1/4}^{1} = 25.06 \, ^{\circ}C$$
  $\lambda = .9 \, cal/cm^{3}deg$   $S_{0} = .0004 \, cal/cm^{2}sec$  mb

$$T_{-1/2}^{5} = 22.89 \, ^{\circ}C \, \mu/\lambda = .0037 \, cm^{2}/sec$$
 G = 3500. cm<sup>2</sup>sec deg/cal

## RADIATION PARAMETERS

Local Time = 0400 C 
$$\frac{1}{8} = 13.30 \text{ mb}$$
  $F_c = 0.31$   $= 0.26$   $= 0.950$   $= 0.26$   $= 15.275 \text{ deg}$   $= 40.2 \text{ deg}$   $= 0.750$   $= 0.750$   $= 0.40$   $= 0.0270 \text{ mb}^{-1/2}$  Cloud Class = 3  $= 0.975$   $= 0.975$   $= 0.975$   $= 0.975$   $= 0.975$   $= 0.975$   $= 0.975$   $= 0.975$ 

#### HORIZONEAL GRADIENTS

$$\frac{\partial e}{\partial x_{200}} = 0.57 \text{ mb/100 km} \qquad \frac{\partial e}{\partial x_{600}} = 0.50 \text{ mb/100 km} \qquad \frac{\partial e}{\partial x_{1000}} = 0.42 \text{ mb/100 km}$$

$$\frac{\partial e}{\partial y_{200}} = -0.68 \text{ mb/100 km} \qquad \frac{\partial e}{\partial y_{600}} = -0.58 \text{ mb/100 km} \qquad \frac{\partial e}{\partial y_{1000}} = -0.49 \text{ mb/100 km}$$

$$\frac{\partial r}{\partial x_{200}} = -0.24 \text{ °C/100 km} \qquad \frac{\partial r}{\partial x_{500}} = 0.01 \text{ °C/100 km} \qquad \frac{\partial r}{\partial x_{1000}} = 6.26 \text{ °C/100 km}$$

$$\frac{\partial r}{\partial y_{200}} = 1.19 \text{ °C/100 km} \qquad \frac{\partial r}{\partial y_{600}} = 0.64 \text{ °C/100 km} \qquad \frac{\partial r}{\partial y_{1000}} = 0.19 \text{ °C/100 km}$$

DFG 01 INITIAL CONDITIONS - 0400C 12 AUGUST 1969 (page 2 of 2 pages)

WIND COMPONENTS (m.	(se-)	TEMPERATURE (°C)	VAPOR PRESSURE (mb)
"8 = -0.79 v <sub>8</sub>	= 3.72	T <sub>8</sub> = 24.20	e <sub>8</sub> = 13.30
u <sub>32</sub> ~ -0.33 v <sub>33</sub>	<b>= 4.</b> 69	T <sub>32</sub> = 24.70	$e_{32} = 12.87$
u <sub>100</sub> ~ 4.30 v <sub>10</sub>	m 5.86	1100 - 21.65	e <sub>100</sub> = 17.07
u <sub>200</sub> = 7.41 v <sub>20</sub>	00 - 2.09	T <sub>200</sub> = 20.66	$e_{200} = 17.69$
4300 ≈ 7.64 v <sub>30</sub>	001.08	T <sub>300</sub> = 21.97	e <sub>300</sub> = 17.01
	00 = ~1.21	T <sub>400</sub> = 21.81	$e_{400} = 16.03$
	00 = -1.21	T <sub>500</sub> - 21.20	e <sub>500</sub> = 16.09
u <sub>600</sub> = 7.63 v <sub>6</sub>		T <sub>600</sub> ~ 20.98	e <sub>600</sub> = 14.38
u <sub>700</sub> = 7.63 v <sub>7</sub>	uo <b>-1.21</b>	$T_{700} = 20.26$	$e_{700} = 13.71$
u <sub>800</sub> = 7.63 v <sub>8</sub>	001.21	$T_{800} = 19.55$	e <sub>800</sub> = 13.10
u <sub>900</sub> = 7.63 v <sub>9</sub>	00 = -1.21	T <sub>900</sub> = 18.89	e <sub>900</sub> = 12.75
$u_{1000} = 7.63   v_1$	0001.21	$T_{1000} = 18.03$	$e_{1000} = 12.13$
ADVECTION TERMS (s	ec <sup>-1</sup> )		
$a_{200}^{1}$ c.26 x $10^{-5}$		$x 10^{-5}$ $a_{1000}^{1} = 0$	.34 x 10 <sup>-5</sup>
$\beta_{200}^{1} = 0.24 \times 10^{-5}$	$\beta_{\hat{6}\hat{0}\hat{0}}^{1}$ 0.26	× 10 <sup>-5</sup> β <sup>1</sup> 10000	.28 x 10 <sup>-5</sup>
$a_{200}^{2}$ 0.0 x $10^{-5}$	$\alpha_{600}^2$ 0.0	$\times 10^{-5}$ $\alpha_{1000}^2$	.0 x 10 <sup>-5</sup>
$\beta_{200}^2 = -2.20 \times 10^{-5}$	$\beta_{600}^2 = -1.45$	$10^{-5}$ $\beta_{1000}^{2}$	$0.70 \times 10^{-5}$
CONTOUR GRADIENT T	TERMS		
0 hour	1 hour 2	hour 6 hour 1	2 hour
Azimuth 273.0	270.0 28	30.0 300.0 3	30.0 (deg from North)
Magnitude 21.90	26.12	32.65 65.29	73.46 (ft/100 km)

#### CASE CPG I COMPARISON DATA FROM DOGWAY ( I HOUR )

	-	JMPONENTS (SEC) V	TEMPERATURE (DEG C)	VAPOR PRESSURE (MB)
GEE	0.0	-8.29		
1000	8.30	2.56	17.00	11.41
900	10.27	3.33	17.50	12.20
800	7.83	2 • 54	18.60	12.96
700	7.30	2.51	19.50	13.75
600	7.25	2.64	20-10	14.22
200	6.03	2.81	20.90	14.98
400	5.74	3.34	21.89	10.04
00د	2.03	4.90	22.30	10.04
200	-9.63	5.07	22.10	16.52
100	-2.06	3.58	22.00	17.28
32	1.39	-0.15	24.60	12.62
ರ	1.00	-0.84	24-60	12.79
2	C.68	0.59	24.00	XXXX
O	XXXX	XXXX	XXXX	XXXX
2011 IE	:MPERATUR	RE (DEG C)	w1NU	SPEED (M/SEC)
-0.0		13.60	8	1.30
-0.125	•	24.11	2	0.40
-0.250	)	24.83		
-0.500	)	22.83	SURFAL	E SHEAR STRESS
-1.000	)	19.00	( DYNE	S/LM SL. 1 X10
-2.000	)	18.78	JA	u= XXXX

#### SURFACE ENERGY TERMS (LY/SEC) X1000

S(D) =	0.20	Q(E,0)=	***
R(N)=	XXXX	ú(S,O)=	XXXX
C((u)=	XXXX		

INTEGRATED EVAPUTRANSPIRATION (GM/LM \$Q.) X100

E= XXXX

#### CASE DPG I CUMPARISON DATA FROM DUGNAY ( 2 HECK )

	-	NALONENI?	TEMPERATURE (DEG C)	VAPUR PRESSURE (MB)
ot 0	-1.80	-10.21		
1000	4-53	-1.76	16-40	9.82
900	4.86	-1.68	17.20	10.23
<b>60</b> 0	4.00	-1.68	17.90	10.37
700	4.89	-1.59	18.50	11.25
600	4.95	-1.42	19.60	11.80
500	4.62	-0.24	20.50	12.28
400	4.59	0.64	21.40	12.87
300	3.12	1.80	22.10	13.85
200	1.59	2.65	22.50	15.00
100	0.0	2.06	21.70	14.59
32	-3.50	1.20	22.40	14.79
8	-3.40	0.18	22.50	15.18
2	-2.59	-0.23	22.60	XXXX
O	XXXX	XXXX	XXXX	XXXX
SOIL TE	MPERATU	RE IDEG ()	WIND	SPEED (M/SEC)
-0.0		14.80	ង	3.40
-0.125		23.67	2	2.60
-0.250		24.50		
-0.500		22.67	SURF AC	E SHEAR STRESS
-1.000		18.83	(DYNE	S/CM S4. ) X10
-2.000		18.61	14	U= XXXX
		SURFACE ENER	GY TERMS (LY/SL	C) X1000

S(0)=	1.20	3(F,0)=	XXXX
R(N) =	XXXX	U(S.01=	XXXX
C(C,O)=	XXXX		

INTEGRATED EVAPOTRANSPIRATION (GM/CM SU.) X100

E= XXXX

### CASE EPG 1 COMPARISON DATA FROM DOGWAY ( 6 HOUR )

		LMPUNENTS (SEC) V	TEMPERATURE (DEG C)	VAPUR PRESSURE (Mb)
GEC	-10.36	-17.90		
1000	2.11	-5-80	20-60	10.02
900	2.21	-5.76	21.20	10.37
800	1.84	-6.43	22.00	10.59
700	1.60	-7-55	22.60	10.73
000	1.45	-6.11	23.20	11-10
50u	1.82	+8.55	24.00	11-33
400	2.53	-9.14	24.70	11.50
300	2.13	-7.42	25.20	11.80
200	1.59	-4.89	26.00	12-12
100	1.11	-2.86	26.60	12.28
32	0.25	-7.30	25.80	10.59
ರ	0.77	-7.36	20.80	10.44
2	1.19	-5.58	28.00	XXXX
υ	XXXX	AAXX	XXXX	XXXX
SUIL I	EMPERATUS	RE (BEG L)	WIND	SPEED (M/SEC)
-0.0		39.70	ប	7.40
-0.12	5	22.50	2	5.70
-0.25	0	22.89		
-0.50	0	21.78	SURF AC	E SPEAR STRESS
-1-00	υ	10.05	LUYNE	5/CM S4.1 X10
-2.00	0	17.89	10	lu≃ XXX (

# SURFACE ENERGY TERMS (LY/SEC)X1000

5(0)=	5. bC	4(E,0)=	XXXX
R(N)=	XXXX	<b>((5,0)</b> =	XXXX
C(C . 0) -	***		

INTEGRATED EVAPOTRANSPIRATION (GM/CM 53.1X100

E= XXXX

# CASE DPG 1 COMPARISO' DATA FROM DUGWAY (12 HOUR )

		MPONENTS T SEC) V	EMPERATURE (DEG C)	VAPOR PRESSURE
GE O	-20.20	-11.66	•	
	1.62	-6.49	18.30	9.42
		-6.46	19.20	10.02
		-6.46	20.00	10.73
		-5.84	20.90	11.48
		-5.80	22.00	10.37
		-4.62	23.00	9.23
400	2.59	-3.84	24.00	8.19
300	2.72	-3.75	25.10	7.21
200	2.85	-3.65	26.10	6.52
100	2.91	-3.60	27.20	7.47
32	-1.55	-6.21	28.50	8 <b>-9</b> 7
8	-1.00	-6.32	29.20	9.55
2	-0.31	-4.49	30.00	XXXX
0	XXXX	XXXX	XXXX	XXXX
SOIL TI	EMPERATUR	E (DEG C)	WIND	SPEED (M/SEC)
-0.0		39.10	. 8	6.40
-C.12	5	24.44	2	4.50
-0° 25		23.17	_	
-0.50		21.56	SURF A	CE SHEAR STRESS
-1.00		17.78		ES/CM SQ.) X10
-2.00		17.67	I	AU= XXXX
		SURFACE ENERG	Y TERMS (LY/S	EC ) X1 000
	S(D)=	1.20	Q(E,0)=	xxxx
	RINI	XXXX	015.01	≖ XXXX
	Q(C.O)	= XXXX	•	

INTEGRATED EVAPOTRANSPIRATION (GM/CH SQ.) X100

£= XXXX

#### CASE OPG I GPAL GUTPUT DATA

#### VELUCITY CUMPUNENTS

KICH SU/SEC	1 24144	23709	23869	24534
TAPE NU.	1 - 0	2.0	3.0	4.0
INI ERVAL	12nk	1.2HR	12HK	12HR

#### U CUMPONENT (M/SEC)

```
LEVELIHI GPAL
                                      GPAC
                                             DIFF
                ULFF
                        GPAL
                               DIFF
                                                    SPAC
                                                           DIFF
 GEU
       ~20.14
                               0.06 -20-14
                U.U6 -20.14
                                            0.00 -20.14
                                                           0.06
 1000
       -22.64*-24.26 +20.44*-22.06 -20.11*-21.73 -22.30*-23.92
 900
       -20.27*-22.00 -18.88*-20.60 -18.58*-20.31 -20.0\ 6-21.77
 600
       -19.00*-20.73 -17.87*-19.60 -17.61*-19.34 -18.80* 20.53
       -18.05*-28.06 -17.07*-19.06 -10.63*-15.84 -17.57*-14.88
 700
 600
       -17.27*-19.38 -46.37*-18.48 -10.15*-10.26 -17.23*-19.21
 50U
       -10.53*-10.79 -15.71*-17.97 -15.49*-17.75 -16.: [ -16.2
 400
       -15.81*-18.40 -15.05*-17.04 -14.844 17.43 -15.86*-18.25
 300
       -15.05*-17.74 -14.33*-17.05 -14.13*-16.65 -14.40*-17.62
       -14.14*-10.99 -13.484-16.33 -13.29...10.14 -14.01*-16.80
 200
 100
       -12.804-15.77 -12.274-15.18 -12.094-15.00 -12.734-15.64
       -11.03 -9.48 -10.52 -8.97 -10.50 -8.81 -10.91 -9.36
  32
        -6.91 -7.91 -6.50 -7.50 -8.37 -7.37 -8.82 -7.62
   B
```

#### V COMPONENT (MISEL)

```
LEVEL(M)
                        CPAL
                               DIFF
                                             DIFF
            4C
                 ∪1+ +
                                     GPAL
                                                     GPAC
                                                            DIFF
 GEG
        -11.04
                 0.02 -11.64
                             0.32 -11.64
                                            0.02 -11.64
 1000
       -20.53 -14.04 -15.06 -12.57 -15.03 -12.54 -20.97 -14.48
 900
        -20.10 -13.64 -15.74 -13.26 -19.60 -13.34 -20.48 -14.02
 bÛÛ
        -19.67 - 13.21 - 3.56 - 13.12 - 19.67 - 13.21 - 20.05 - 13.59
 700
        -19.25 -13.41 -19.26 -13.42 -19.40 -13.56 -19.63 -13.79
 600
        -18.63 -15.03 -18.69 -13.09 -19.30 -13.26 -19.22 -13.42
 500
       -18.38 -13.76 -18.47 -13.65 -16.57 -14.05 -18.78 -14.16
  400
        -17.87 -14.03 -17.95 -14.14 -15.20 -14.36 -18.28 -14.44
 300
       -17.27 -13.52 -17.39 -13.64 -17.63 -13.86 -17.68 -13.93
 200
       -10.48 -12.03 -16.01 -12.40 -16.80 -13.21 -16.90 -13.25
 100
        -15.24 - 11.64 - 15.37 - 11.78 - 15.62 - 12.03 - 15.63 - 12.03
  32
        -13.27 -7.00 -13.39 -7.10 -13.01 -7.40 -13.61 -7.40
        -10.81 -4.49 -10.90 -4.58 -11.09 -4.7° -11.09 -4.77
```

# CASE DPG 1 GPAC OUTPUT DATA

# AIR TEMPERATURE AND VAPOR PRESSURE

TAPE NU. INCERVAL		1.0 HR		2.0 HR		3.0 HK		4.0 HR
AIR TEMPERATURE (DEG C)								
LEVEL(H)	GPA.	DIFF	GPAL	DIFF	GPAC	ULFF	GPAC	DIFF
1000	24.17	5.87	24.13	5 さう	40.55	2.28	20.57	2.27
900	24.07	4.87	24.04	4.84	20.52	1.32	20.51	1.31
800	24.00	4.00	23.97	3.97	20.47	U. 47	20.46	0-46
700	23.93	3.03	23.92	3.02	20.43	-0.47	20-42	-0.48
600	23.85	1.85	23.84	1.84	20-37	-1.63	20.37	-1.63
500	23.78	C.75	23.77	0.77	20.34	-2.66	20.33	-2.67
400	23-68	-0.32	23.67	-0.33	20.27	-3.73	20.26	-3.74
300	23.58	-1.52	23.57	-1.53	20.22	-4 -88	20.21	-4.89
200	23.41	-2.69	23.41	-2.59	20.13	-5.97	20.12	-5.98
100	23.19	-4.01	23.19	-4.01	20.04	<b>-7</b> .16	20.03	-7.17
32	22.82	-5.68	22.82	-5.60	15.85	-8.65	19.85	8.65
8	22.39	-6.81	22.41	-6.79	19.63	-7.57	19.63	-9.57
2	21.77	-8.23	21.78	-8.22	15.34	-10.66	19.34	-10.66
O	20.59	XXXX	20,59	XXXX	18.07	XXXX	18.69	XXXX
			VAPOR P	RESSURE	(MB)			
FEAFF(K)	GPAL	DIFF	GP AC	DIFF	GPAL.	DIFF	GPAL	DIFF
1000	12.51	3.09	12-63	3.21	13.59	4-17	13.61	4.19
900	12.81	2.79	12.94	2,92	13.91	3.89	13.92	3.90
800	13.00	2.35	13.19	2.40	14-16	3.43	14.17	3.44
700	13.32	1.64	13.44	1.96	14.41	2.53	14.42	2.94
600	13.53	3.16	13.66	3.29	14.63	4.20	14.63	4.26
500	13.77	4-54	13.91	4-68	14.27	5.64	14.88	5.65
400	13.49	5.80	14-11	5.92	15.08	6.89	15.05	5.90
30U	14.23	7.02	14-36	7.15	15.33	6.12	15.33	8.12
200	14.47	7.95	14.61	8.09	15.50	9.04	15.56	9.04
100	14.79	7.32	14.92	7.45	15.84	8.37	15.84	8.37
32	15.C7	0.10	15.20	6.23	16.07	7.10	16.27	7.10
8	15.34	5.79	15.47	5.92	16.26	6.71	16.26	6.71
2	15.65	15.65	15.76	15.78	16.43	16.43	16.53	16.43
0	16.25	XXXX	16.37	XXXX	10.02	XXXX	16.81	XXXX

### CASE DPG 1 GPAC DUTPUT DATA

### MISCELLANEUUS VARIABLES

TAPE NO. INTERVAL		<b>∡ .</b> 0 2HK		2.0 (HK		3.U 2HR		4.0 268
SUIL TEMPERATURE (DEG C)								
TEAFT[W]	GPAL	LIFF	LPAL	DIFF	UPAL	Ulff	GPAC	DIFF
- O - O	21.02	-17.45	21.63	-17.47	20.66	-18.44	20.06	-18.44
-0.125	22.57	-1.87	22.58	-1.00	22.35	-2.09	22.35	-2.09
-0.250	23.52	<b>5 د .</b> 0	23.53	0.36	23.49	0.32	23.50	0.33
-0.500	22.62	1.00	22.62	1.06	22.62	1-05	22.63	1.07
-1.000	19.19	1.41	19.19	1.41	19.19	1.41	19.19	1.41
		1.20				1.20		
WIND SPEED (M/SEC)								
LEVELIMI	EPAL	DIFF	CPAC.	DIFF	GP AL	BIFF	GPAC	DIFF
ಕ	14.01	7.61	13.63	7.43	13.90	7.50	14-17	7.77
2	9.10					5.13		
	Ş	SURFACE	ENERGY	TERMS (	LY/SEC	X1000		
PANALEIH	R CPAL	ulff	GPAC	Ülff	GPAL	DIFF	GPAL	DIFF
(ن) ک	1.43	0.23	1.42	0.22	1.42	0.22	1.42	0.22
K(N)	-0.18			XXXX	-0.24	XXXX		
G(C.0)	-3.11	XXXX	-3.06	XXXX	-1.52	XXXX	-1.65	λXXX
CLE.O)	3.22	XXXX	3.17	XXXX	1.45	XXXX	1.96	XXXX
		XXXX	-C.29	XXXX	-0.50	XXXX	-0.55	XXXX
SURFACE SHEAR STRESS (DYNES/CM SWIXIG								
PARAMETE	R GPAC	61FF	CPAC	JIFF	GPAC	DIFF	GPAC	DIFF
TAU	72.34	XXXX	70.10	XXXX	70.90	XXXX	74.30	_
INTEGRATED EVAPOTRANSPIRATION (GM/CM Se)x100								
PAKAMETE	R GPAC	DIFF	GPAL	DIFF	GPAC	DIFF	GPAC	DIFF
£	20-20	XXXX		XXXX		XXXX		XXXX

#### CASE DPG 1 GPAS DUTPUT DATA

### VELOCITY COMPONENTS

KILM SU/SEC	1 24529	£3869	23689	24144
TAPE NO.	5.0	6.0	7.0	0.8
INTERVAL	1288	12HR	12HK	12HR

### U COMPUNENT (M/SEC)

LEVELLMI	GPAC	DIFF	GP A C	DIFF	GPAC	DIFF	GPAC	DIFF
GEU	-20-14	0.06	-20.14	0.06	-20.14	0.00	-20.14	0.06
1000	-42.31*-	-23.93	-20.11*-	-21.73	-20.44*	-22.06	-22.64	-24.26
900	-20-04*-							
800	-18.80*-							
700			-16.83					
600	-17.10*-							
500			-15.49*-					
400			-14.84*					
<b>3</b> 00			-14.12*					
200			-13.28*					
100	-12.73*-		-12.08*					
32	-10.91		-10.36					
8	-8.81	-7.81	-8.36	-7.36	-6.51	-7.51	-8.92	-7.92

#### V COMPONENT (M/SEC)

FEAFT( M)	GPAL	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF
GEO	-11.64	0.02	-11-64	0.02	-11.64	0.02	-11.64	0.02
1000	-20.97	-14.48	-19.03	-12.54	-15.04	-12.55	-20.52	-14.03
ନ୍ତତ	-20.48	-14.02	-19.80	-13.34	-19.32	-13.26	-20.08	-13.62
800	-20.05	-13.59	-15.68	-13.22	-19.56	-13-10	-19.00	-13.20
700	-19-63	-13.79	-15.40	-13.50	-19.25	-13.39	-15.24	-13-40
600	-19-22	-13.42	-19.07	-13.27	-18.88	-13.08	-18.82	-13.02
500	-18-78	-14.16	-18.65	-14.03	-18-45	-13.83	-18.38	-13.76
400	-18.27	-14.43	-16.21	-14.37	-17.96	-14.12	-17.66	-14.02
300	-17.68	-13.93	-17.64	-13.89	-17.38	-13.63	-17.26	-13.51
200	-16.89	-13.24	-16.86	-13.21	-16.59	-12-94	-16.47	-12.82
100	-15.63	-12.03	-15.63	-14.03	-15.36	~11.76	-15-23	-11.63
32	-13.el	-7-40	-13.62	-7.41	-13.38	-7.17	-13.26	-7.06
8	-11.09	-4.77	-11-09	-4.77	-10.89	-4.5?	-10.80	-4-46

# LASE DPG 1 GPAC DUTPUT DATA

# AIR TEMPERATURE AND VAPUR PRESSURE

TAPL NO.	5.0		٥.0		7.0		8.0	
INTERVAL	12	2HR	12	нK	12	нк	12HR	
		A i	R TEMPE	RATURE	(DEG C)			
LEVEL (M)	GPAL	DIFF	GPAC	DIFE	GPAL	UIFF	GPAL	DIFF
1000	20.85	2.55	26.86	2.50	24-41	<b>5.11</b>	46	6.16
900	20.81	1.61	20.82	1.62	24-34	5.14	24.37	5.17
ಕರರ	20.10	9.76	20.77	C.77	24.20	4.20	24.29	4.29
700	20.73	-0.17	2C.74	-0-10	24.22	3.32	24.23	3.33
600	20.68	~1.32	20.71	-1.29	24.15	2.15	24.16	2.10
500	20.65	-2.35	26.66	-2.34	24. C8	1.05	24.05	1.09
400	20.58	-3.42	20.61	-3.39	23.98	-0.02	23.99	-0-01
300	20. 14	-4.50	20.56	-4.54	23.91	-1.19	23.91	-1.19
200	29.35	-5.65	2C.46	-5.04	23.75	-2.37	23.73	-2.37
100	20.37	-4.63	20.39	-6.81	23.52	-3-68	23.52	-3.68
32	20.21	-8.29	20.21	-8.29	23.10	-5.34	23.16	-5.34
b	20.01	-9.19	20.02	-5.18	22.76	-6.44	22.75	-6.45
∠	19.74	-10.26	15-74	-10.26	22.15	7.85	22.14	-7-86
C	19.12	XXXX	19.11	XXXX	49. <del>5</del> 8	XXXX	20.98	XXXX
			vapor f	PRESSURL	(Mp)			
LEVEL(M)	GPAC	BIFE	GP AC	DIFF	GPAL	DIFF	GPAC	DIFF
1000	13.75	4.33	13.74	4.32	12.76	3.36	12.65	3.23
900	14.07	4.05	14.06	4.04	13.11	3.09	12.99	2.97
800	14.34	3.61	14.23	3,60	13.37	2.64	13.25	2.52
<b>7</b> 00	14.59	3.11	14.59	3.11	13.02	2.14	13.49	2.01
600	14.31	4.44	14.80	4.43	13.00	3.40	13.71	3.34
500	15.06	5.83	15.05	5.62	14.09	4.66	13.96	4.73
400	15.27	7.03	15.27	7.08	14.31	6.12	14.17	5.98
300	15.52	8.31	15.51	8.30	14.55	7.35	14.43	7.22
200	15.75	9.23	15.75	9.23	14-61	8.29	14.67	8.15
100	16.04	8.57	16.05	8-58	15.14	7.07	14.99	7.52
32	16.20	7.51	16.27	7.30	15.42	0.45	15.28	6.31
8	16.49	6.94	16.49	6.94	15.71	5.16	15.57	6.02
2	16.66	16.66	16.66	16.50	16.04	10.04	15.89	15.89
U	17.05	XXAX	17.06	XXXX	16.00	XXXX	16.51	XXXX

# CASE DPG 1 GPAC OUTPUT DATA

### MISCELLANEUUS VARIABLES

TAPE NU.			-		7.u 12hR		8.0 12HK					
SUIL TEMPERATURE (DEG C)												
-1.000	21.95 23.37 23.94 22.66 19.30	-17.15 -1.07 0.77 1.10 1.52	21.94 23.37 23.94 22.66 19.31	-17.1e -1.07 0.77 1.10 1.53	22.83 23.59 23.97 22.60 19.31	-16.27 -0.85 0.80 1.16 1.53	22.83 23.58 23.99 22.66 19.30	-16.27 -0.86 0.82 1.10 1.52				
-2.000	24.54	5.87	24.34	6-87	24.33	0 - 86	24.54	6.87				
WIND SPEED (M/SEC)												
LEVEL(M) 8 2	14.17	D1FF 7.77 5.41	13.90	7.50	GPAC 13.63 9.66	7.43	GPAC 14.01 9.20	7.61				
	SURFACE ENERGY TERMS (LLY/SEC) X1000											
PARAMETE S(D) R(N) Q(C,Q) Q(E,Q) Q(S,Q)	1.42 -0.20 -1.54 2.09	0.22 XXXX XXXX	-0.26 -1.52 2.08	22.0 XXXX XXXX	-0.19 -2.96 3.32	0.23 XXXX XXXX	-3.04	0.22				
	SUR	FAGE SH	EAR STR	ESS LOY	NES/CH	SUIXIC						
PARAMÈTE TAU	74.30	XXXX	70.90	DIFF XXXX ISPIRATI	70.02	XXXX						
PARAMETE E		DIFF		DIFF XXXX		Ülff XXXX	GPAC 21.60	HAIG XXXX				

### LASE DPG 1 GPAC GUTPUT DATA

## VELCUITY COMPONENTS

K(LM SQ/SEL) 164		154		1 9		174		
TAPL NO.		1.0		2.0		3.0	<del>-</del>	4.0
INI ERVAL	121	n.rk	120	HK	121	114	12HR	
		u	COMPON	ENT (M/	SEC )			
							. 0.4.0	STEE
TEAET(W)	GPAL		GPAC		GP AL		UPAC -0.30	
GEU	-0.30		-0.30	-	-0.30 -9.19#-		-3.92*	
1000	-3.91*		-5.15*				-6.60*	
900	-6.80*	-	- E. 43*	_	-لاز4،4-		-5.94*	
£00	-6.95*		-7.85*		-7.89* -7.45*		-6.77*	
700	-6.77*		-1.45*				-6.48*	
600	-6.50*		-7-03*		~7.00*		-0.14*	
500	-6.14*		-6.57*		-6.57*		-5.76*	
400	-5.70*		-6.12*		-6.12*		-5.32*	
300	-5.31*		-5.52*		-5.63*	-	-4.78*	
200	-4.75*		-5.04*		-5.05*		-4-01*	
100	-4.01*		-4-25		-4.20*		<del>-</del> -	
32	-3.01		-3.21		-3.43		-3.02	
8	-2.21	-1.21	-2.39	-1-39	-2.39	-1.34	·· 2 • 2 2	-1.22
		V	CUMPLN	ENI (M/	5E4)			
					. 5. 4.	0.156	r: D.A.C	DIEE
LCVEL(M)		DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF
ĞEG	-0.43	4.73	-6.93	4.73	-6.53	4.73	-6.93	4.73
1000	-6.10	0.33	-4.66	1.83	-4.67	1.82	-6.16	0.32
900	-5.77	0.69	-5.25	1.20	-5.27	1.18	-5.78	0.68
600	-5.65	0.60	- 5.53	0.95	-5.50	0.90	-5-87	0.58
700	~5.95	-0.11	-5.70	0.13	-5.75	0.11	-5.97	-0.13
600	-0.UI	-0.21	-5.80	-0.01	-5 + 63	-0.03	-6.04	-0.24
500	-6.00	-1.44	-5.89	-1.27	5.91	-1.30	-6.09	-1.47
400	-6.09	-2.26	-5.92	-2.09	-5.45	-2.12	-6.11	-2.27
300	-0.07	-2.32	-5.51	-2.16	-5.93	-2.18	-6.08	-2.33
200	-5.96	-2.31	-5.82	-2.17	-5.84	-2.15	-5.98	~2.33
109	-5.66	2.07	-5.52	-1.92	-5.54	-1.94	-5.67	-2.07
32	-5.05	1.15	-4.93	1.27		1.27	-5.06	1-14
8	-4.24	2.08	-4.13	2.19	-4.14	2.15	-4.24	2.08

## CASE DPG 1 GPAL BUIPUT DATA

### AIR TEMPERATURE AND VAPUR PRESSURE

TAPE NO. INTERVAL	11-0 12HR		12.0 12HR		13.0 12HR		14.0 12HK	
		AII	R TEMPE	RATUKE	(DEG C)			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF
1000	20.55	2-25	20.57	2.27	20.70	2.40	20.69	2.39
900	20.77	1.57	20.76	1.56	20.55	1.75	20.95	1.75
800	20.88	0.88	26.87	0.87	21.09	1.09	21.08	1.08
700	20.94	0.04	20.95	0.05	21.16	0.26	21.16	0.26
600	20.96	-1.04	20.95	-1.05	21.19	-0.61	21.20	-0.80
500	20.93	-2.07	2C.92	-2.08	21.18	-1.82	21.18	-1.82
400	20.88	-3.12	20.87	-3.13	21.14	-2.86	21-14	-2.86
300	20.85	-4.25	20.84	-4.26	21.12	-3.9b	21.13	-3.97
200	20.79	-5.31	20.79	-5-31	21.09	-5.01	21.09	-5.01
100	20.84	-6.36	20.83	-6,37	21.15	-6.05	21-17	-6.03
32	20.85	-7.65	20.82	-7.05	21.19	-7.31	21.23	-7.27
8	20.73	-8.43	20.69	B - 5 1	21-14	-8.06	21.19	-8.01
2	20.33	-9.87	20.30	-9.20	21.01	-8.99	21.05	-8.95
0	19.90	XXXX	18.66	XXXX	20.87	XXXX	20-91	XXXX
			VAPOR P	RESSURE	(Mb)			
LEVELLA	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	12.45	3.03	12.4?	3-05	12.57	3.15	12.54	3.12
900	12.99	2.97	12.99	2.97	13.11	3.09	13.09	3.07
800	13.36	2.63	13.38	2.65	13.53	2.80	13.49	2.76
700	13.71	2.23	13.73	2.25	13.50	2.42	13.87	2.39
630	14.03	3.66	14.06	3.69	14.23	3.86	14.21	3.84
500	14.42	5.19	14-42	5.19	14.61	5.38	14.60	5.37
400	14.78	6.59	14.78	6.59	14.98	0.79	14.97	£.78
300	15.19	7.98	15.20	7.99	15.41	8-20	15.40	8.19
200	15.63	9.11	15.63	9.11	15.85	9.33	15.88	9.36
100	16.32	8.85	16.31	8.84	16.59	9.12	16.61	9.14
32	17.17	8.20	17.13	8-16	17-47	8.50	17.52	8.55
8	18.12	8.57	18.06	3.51	18.56	9.01	18.61	9.06
2	20.46	20.46	19.19	19.19	21.36	21.36	21.61	21.61
0	23.01	XXXX	22.94	XXXX	24.41	XXXX	24.46	XXXX

# CASE DPG 1 GPAC OUTPUT DATA

### MISCELLANEOUS VARIABLES

TAPE NU.		11-0 12HK		12.0 12HL		3.0 HK	14.0 12HR				
		SU 1	L TEMPE	RATURE	(DEG C)						
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF		DIFF			
-0.0	21.28	-17.82		-17.85		-10.44		-16.40			
-0.125	22.49	-1.95			23.53		23.54	-0.90			
-0.250	23.52	0.3:	23.52	0.35	23.90			0.79			
-0.500	22.02	i a U ti	44.04	1.06	22.66	1.10	22.66	1.10			
-1.000	19.19	1.41	19.21	1-43	19.30			1.53			
-2.000	18.88	1.21	18.88	1.21	24.54	6.87	24.53	6.86			
WIND SPEED (M/SEC)											
TEAETIW)	GPAL	DIFF	GPAL	UIFF	GPAL	DIFF	GPAL	DIFF			
8		-1.60					4.80				
2	2.50		3.68		2.50		2.34	-2.16			
	:	SURFACE	ENEKGY	TERMS	(LY/SEC)	X1000					
PAKAMETE	R GPAC	DIFF	GPAL.	DIFF	GPAL	DIFF	GPAC	DIFF			
S(D)	1.42	0.22	1.42	0.22	1.42	0.22	1-42	0.22			
R(N)	-0.28	XXXX	-0.28	XXXX	-0.36	XXXX	-0.36	XXXX			
010.01	-0.00	XXXX	C. 0	XXXX	-0.00	XXXX	0.01	XXXX			
QEE,OI	0.11	XXXX	0.1)	XXXX	0.14	XXXX	0.14	XXXX			
0(5.0)	-0.39	XXXX	-0.39	XXXX	-0.51	XXXX	-0.51	XXXX			
	20!	KFALE ŠF	IĒAK STÉ	less (D)	rhē S/LH	SQLXLO					
PARAMETE	R GPAL	UIFF	GPAL	UIFF	GPAL	DIFF	GPAC	DIFF			
TAU	0.14	XXXX	0.12	XXXX	0.10	XXXX	0.14	XXXX			
	INTEGRATED EVAPOTRANSPIRATION (GH/LM SQ)X100										
PARAMETE	R GPAC	DIFF	GFAC	DIFF	GPAL	DIFF	GPAL	DAFF			
E	11.70	XXXX	11.70			XXXX	13.50	XXXX			

# CASE DPG 1 GPAC GUIPUT DATA

# VELUCITY COMPONENTS

KILH SG	/SECA	1884		1859	_			
TAPE NO		25.0				884		1884
INTERVA	_	25R		26.0		27.0	•	28.0
	•	C I I I	1.	2HR	14	HR	1.	2HR
			u COMPOI	NENT (M	/SEL)			
LEVEL(M	) GPAC	DIEC	1246					
SEU	-0.30	19.89	GPAC		GPAL			DIFF
1000		12.84			-0.30		-0.30	19.89
900				-0.34		-4.93		-11.35
800	-11 15	* 13 - U4	-10-174	-11-96		-9.93		-11.55
700	~1U 47	12.00	-10.824	-12-55		-10.87		-11.57
600	-10.66	12 - 69	-10.744	- 12.75	-9.40*		-9.78	-11.79
500	-10-54	P-12-65	-10.474	-12.58	-9.41*			-11.74
400	-10-14-	12.26 12.26	-10.104		-9.27*		-9.41	-11.67
300		-11.84		-12.24	-9.C1*			-11.69
200		-11-26 -11-26		-11-83	-8.63*			-11.41
100		-10.36		-11.27	-8.08+		-8.124	-10,97
32		-4.58		-10-36	-7.19*		-7.22*	-10.13
35				-4-58	-5.53		-5.95	4-41
9	-4.63	-3.83	-4.83	-3.83	-4.68	-3.68	-4.69	-3.69
		٧	COMPON	ENT (H/	SECI			
LEVELIM	( D A C	615.	<b>.</b>					
GEO	6.93	DIFF	€	DIFF	GPAL	DIFF	<b>GPAL</b>	DIFF
1000		4.73	-6.93	4.73	-6.91	4.73	-6.92	4.74
<b>6</b> 00	-2.00 -2.00	4.49	-6.32	0.16	~5.69	3.60	-3.47	3.02
800	-2.80 -3.39	3.65	-3.61	2.55	-4-48	1.98	-3.68	2.57
700		3.00	-3.86	2.60	-4.54	1.92	-4.29	2.17
600	-3-81	2.02	-4.05	1.79	-4.78	1.06	-4.05	1-18
<b>5</b> 00	-4-16	1.63	-4.29	1.51	-5-05	0.74	-4.97	0.82
400	-4-40	0.22	-4.49	0.13	-5.31	-0.69	-5.20	-0.54
300	-4.57	-0.73	-4.61	-0.78	-5.53	-1.70	-5.49	-1.60
200	-4.64	-0.89	-4-67	-0.92	~5.69	-1.94	-5.07	-1.92
100	-4-63	-0.98	~4.65	-1.01	-5.77	-2.12	-5.75	-2.10
32	-4-48	-0-38	-4.49	-0.90	~5.63	-2.03	-5.62	-2.63
	-4.02	2.19	-4.03	2.18	-5.09	1-11	-5.09	1-11
8	-3.32	3.00	-3.32	2.99	-4.21	2-11	-4-21	2.11

#### LASE OPG 1 GPAC GUIPUT DATA

### AIR TEMPERATURE AND VAPUR PRESSURE

TAPE NU. INTERVAL	25_0 12hR		26.0 12HR			7.0 hK	28.0 12hr	
		AI	K TEMPE	KATURE	CDEG C1			
LEVEL(M)	GP AC	DIFF	G₽ AC	DIFF	GPAL	DIFF	GPAL	DIFF
1000	21-54	3.44	21.25	2.95	19.08	1.38	19.68	1.38
900	23.21	4.01	23.02	3.82	20.65	1.45	20.65	1.45
800	24.02	4.02	23.90	3.40	21-05	1.05	21.00	1.06
700	24.54	3.64	24.45	3.55	21.28	0.38	21.25	0.35
600	24.87	2.87	24.82	2.82	21.35	-0.01	21.39	-0-61
500	25.13	2.13	25.09	2.09	21.47	-1.53	21.47	-1.53
400	25.29	1.29	25-26	1.26	21.52	-2.48	21.52	-2-46
300	25-41	0.31	25.38	0.28	21.59	-3.51	21.58	-3.52
200	25.41	-0.69	25.37	-0.73	21.63	-4-47	21.64	-4.40
100	25.26	-1.94	25.24	-1.90	21.74	-5.46	21.75	-5.45
32	24.90	-3.60	24.87	-3.63	21.76	-6.14	21.77	-6.73
8	24.25	-4.95	24.23	-4.97	21.57	-7-63	21.57	-7.53
2	22.72	-7.28	22.70	-7.3C	20.96	-9.04	20.97	دن. 9
O	21.09	XXXX	21.07	XXXX	20.26	XXXX	20.27	XXXX
			VAPOR P	RESSURI	E (Mb)			
LEVELIMI	GPAL	UIFF	CPAL	DIFF	GPAC	DIEF	GPAL	DIFF
1000	10.87	1.45	1C.82	1.40	11.33	1.91	11.33	1.91
900	11-52	1.50	11.44	1.4.	12.13	2.11	12.13	2.11
800	11.99	1.26	11.96	1.23	12.71	1.98	12.71	1.98
<b>70</b> 0	12.45	0.97	12.44	0.95	13.23	1.75	13.22	1.74
600	12.87	2.50	12.90	2.53	13.76	3.35	13.73	3.36
500	13.35	4.12	13.38	4.15	14.25	5.02	14.20	5.03
400	13.84	5.65	13.66	5-67	14.79	6.60	14.80	6.41
300	14.42	7.21	14-43	7.22	15.41	8.20	15.41	8.20
200	15.08	8-56	15.08	8-56	16.07	9.55	16.07	9.55
100	16.02	8.55	16.02	8.55	16.55	9.52	10.97	9.50
<b>3</b> 2	17.12	8.15	17.12	8.15	17.55	8. 38	17.95	8.98
В	18.21	8.66	18.21	8.66	18.50	9.25	18.79	9.24
2	20.20	20.20	20.18	20.18	20.16	20.10	26.10	20.10
0	22.31	***	22.28	XXXX	21.75	XXXA	21.75	XXXX

### CASE DPG 1 GPAC OUTPUT DATA

### MISCELLANLOUS VARIABLES

TAPE NO. INTERVAL	_	15=0 2HR	14	26-0 2HK		7.0 HR		26.0 2HR
		Sul	L TEMPE	RATUKL	(666-61			
ESVELIM)	GPAC	U1F F	GPAL	DIFF	GPAL	01++	GPAL	DIFF
-0.0								
-0.125					24.02			-0.42
-0-250		0.40				0.88		0.88
-0.500	22.00					1.11		
					19.29			
-2.000	24.54	6.87	24.54	6.87		0.00		6.87
 			m IND SE	FED (M	SLUI			
LEVEL(H)	GPAL	DIFI	GPAL	0166	GPAL	DIFF	GPAC	DIFF
8					6.30		6.31	
2					3.34			
· ·	S	URFACE	EHERGY	TERMS (	(LY/5EC)	X1000		
PARAMETE	R GPAC	DIFF	GPAL	0166	GPAL	DIFE	GPAL	DIFF
 -\$tDi	1.43		1.42	0.22	1.42	0.22	1.42	
RENI	~C • 04	XXXX	-0.05	XXXX		XXXX		
44.00 to 1	-0.42	XXXX	-0-42	XXXX	-0.17	AXXA		XXXX
4(E.0)	1.14	XXXX	1-12	XXXX	0.81	***	0.81	XXXX
	-0.75		-0.15		-0.60		-0-38	
	\$บล	FALE SH	LAR SIN	ESS (D)	(NES/EM	291X10		
PAHAMETE	R GFAC	D154	GPAC	DIFF	GP AC	Diff	GPAC	DIFF
TAU	2.24	XXXX				XXXX	2.52	XXXX
	INTEGR	ATED EV	APOTRAN	SPIRATI	ION LUM/	UM SÜLA	LuO	
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAL	DIFF
E	11.50	XXXX	11.30	XXXX	10.20	XXXX	10.20	XXXX

#### CASE DPG I GPAC DOTPUT DATA

## VELOCITY COMPONENTS

KILM SU/	K(CH 54/5EC) 1884		-	<b>5 5 4</b>	_	554		384
TAPE NO.	25	¥ Ü	3	6.0		1.0		2.0
INTERVAL	121	∍K.	12	Hin	120	hK	120	HR
		U	CUMPUN	aNI (M)	(2-6)			
LEVEL (M)	UPAL	OIFF	LPAC		GPAL			
SEG	-0.30	19.89	-0.30		-6.30		-0.30	_
£000	-9-73*-	-11.35	-3.36*	-4.54	-40 164	-0.54	-11-22*	-12.64
900	-9.52*	-11.50	-6.20	-9.93	-10.10+	-11-91	-11.51*	-13-04
800	-9.64*	-11.57	-9-14-	-10.61	-10.62*	-12.55	-11.15*	-12.05
70C	-4.10	-11-79		-11.42	-10.75*	-12.70	-10.88*	-12.89
600	-9.634	-11.74	-5-466	-11.52			-10.54#	
500	-9.41*	-11.67	-5.27*	-11.55			-10-14*	
400	-y . 10#	-11.65	~ 5.61#	-11-00	-9.05*	-12.24		
300	-8.59*		-€.63 <b>≠</b>	-11.35		- 11.53	-9-12*	
200	-8.128		-c.Co*	-10.93	-8-42*		-6-43#	
100	-7.21*	- 10.12	~7.19	-10.10	-7.440		-1,45*	
32	-5.50	-4.41	-5,52	-4.37	-0.12	-4.57	-6.12	
8	-4.09	-3.04	-4,60	3.65	-4.03	ده، ڌ-	-4.53	-3.83
		V	CUNPON	::NI 116	/SEC)			
		•	G GATT OIL					
LEVEL (M)	60 46	ULFF	GPAL	DIFF	GPAL	DIFF	GPAL	DIFF
GEÜ	-6.93	4.73	-6.93	4.73	6.93	4.73	-6.93	4.73
1600	-3.47	3.02	-5.69	6.40	-6.32	6.10	-1.99	4-49
900	-3.05	2.57	-4.46	1.98	-3.54	2.54	-2.79	3.00
800	-4-29	2.17	~4.53	1.52	-3.66	2.59	-3.39	3.07
700	-4.05	1.19	-4.76	1.05	-4.05	1.78	-3. dl	2-03
600	-4.98	0.52	-5.05	0.75	-4.30	1.44	-4.16	1-64
500	-5.26	-0.64	-5.30	-0.68	4-45	0.13	1.40	0.22
400	-5.49	-1.66	-5.53	-1,69	-4.61	-ú. 78	-4-56	-6 - 73
300	-5.07	-1.42	-5.63	-1.43	-4.07	-0.92	-4.64	-0-39
200	-5.76	-2.11	-5.76	-2.11	٠ 44 <b>ي</b> ز زه	-1.01	-4.63	-0.25
100	-5.02	-2.03	-5.63	-2.03	-4-45	-0.50	-4 a 4 5	~0.89
32	-5.09	1.11	-5.05	1.11	-4.6	2.10	-4.02	2.19
8	49 in 200	2.11	-4-21	2.11	-2.33	2,99	-3.31	3.01

### CASE LPG I GPAU GUIFUT BATA

### AIR TEMPERATURE AND VAPUR PRESSURE

TAPE NO. INTERVAL	12	(9.0 (FR		0.0 H⊀	3 14	1.0 hK		2.0 HR
		AI	R TEMPE	KATUKE	(DEG C)	•		
LEVELLAS	GP Ai	ULFF	CPAL	011 6	OPAL	DIFF	GPAC	DIFF
1000	19.67	1.37	15.67	1.51	21.65	4.95	21.53	3.23
500	20.61	1.2	20.60	1.40	22.36	3.78	23.15	3.95
800	26.90	0.95	20.97	0.97	23. 12	3.82	23.94	3.94
760	215	0.20	21,16	0.20	24.35	3.45	24.42	3.52
600	21.25	-0.75	21.25	-0.75	24.70	2.70	24.73	2.73
<b>5</b> 00	21.30	-1.70	21.31	-1.59	24.54	3.94	24.96	1.90
400	21.32	-2.68	21.32	-2-68	25.68	1.06	25.09	1.09
200	21.36	-3.14	21.36	-3.34	25.17	0.07	25.17	0.07
200	21.37	-4.73	21.36	-4.74	25.13	-0.97	25.13	-0.97
100	21.44	-5.76	21.44	-5.78	24.95	-2.25	24.95	-2.25
<b>3</b> 2	21.41	-7.09	21.40	-7.10	24.54	-3.46	24.53	-3.97
8	21.14	-8.0£	21.16	-8-04	23.85	-5.35	23.84	-5.30
1	20.42	-9.58	20.43	-9.57	22.22	-7.78	22.20	-7.80
O	19.00	XXXX	19.60	XXXX	20.49	XXXX	20.47	XXXX
			VAPUR P	KESSUKE	(MB)			
LEVELIMI	6 P A L	DILE	<b>G</b> P A C	ÜIFF	GPAL	Ulfi	GPAL	DIFE
1000	11.32	1.96	11.32	1.90	10.62	1.40	10.06	1,44
900	12.00	2.04	12.06	2.00	11.35	1.37	11.47	1.45
BUU	12.61	1.55	12.01	i.tb	11.0%	1-15	11.90	1.17
700	13.10	1.62	13.10	2.0	2.5	ひょどり	12.32	O.84
600	しょっちゃ	3.13	13.50	3.1.	12.74	2.57	12.71	2.34
500	14.00	4.53	14.05	4.63	13.15	2=95	13.13	3.90
460	14.57	o.30	14.56	6.37	13.65	5.40	13.61	5.42
306	72-17	1.92	15-13	7.92	14.15	0.98	14.14	6.93
200	15.75	9.23	15.70	9.64	14.75	8.27	14.75	8.23
100	16.01	9.14	lo-ol	9.14	15.00	8.19	15.62	8.15
32	17.50	₹.53	17.51	8.54	16.71	7. 24	10.67	7.70
ь	18.29	8.74	16.29	6.74	17.71	0.16	17.69	8.14
Ë	11.50	19.56	15.56	15.50	19.50	19.56	19.54	19.54
0	21.01	XXXX	21.01	XXXX	21.51	XXXX	21.49	XXXX

### CASE DPG 1 GPAC OUTPUT DATA

### MISCELLANEOUS VARIABLES

TAPE NU.			1.	3U+0 2Hn	1	31+0 20K		\$2.0 2HR
		201	L TEMPI	EKATUKE	(uto t	•		
-0.250 -0.500 -1.000	22.21 22.93 23.59 22.62	D1FF -16.89 -1.51 0.42 1.06 1.41 1.22	22.21 22.93 23.59 22.63 19.18	-16.69 -1.51 0.42	22.64 23.02 23.61 22.63 19.19	-10.40 -1.42 0.44 1.07	23.02 23.61 22.53 19.19	-16.47
			WIND SI	PEEU (M/	SECT			
LEVEL(M) 8 2	5.31	0166 -0.09 -1.14	6.30	-0.10	5.81	01FF -0323 -1333	5.87	
	•	SURFACE	ENERGY	TERMS (	LY/561	. XTOOO		
Q(L,0) G(E,0)	1.42 -0.19 -0.20 0.75	0 + 2 C ** * X XXXX	-6.26 6.75	0.22 XXXX XXX XXX	-6.61 -6.45 1.65	0. 22 XXXX XXXX XXXX	-0.01 -0.44 1.05	0-22 XXXX XXXX XXXX
	501	KFACE SF	EAR ST	4622 (D)	'NE 5/LM	SULXIU		
PARAMETÉ TAU	1.54		2.52	XXXX	2.30	XXXX		
PAKAMETE E	R UPAL 8.10					DIEF XXXX		

では、10mmのでは、1

#### CASE EPG 1 GPAL GUIFUT GATA

#### VELOUITY COMPLNENTS

23919

KILM SE/SEL1 24069 23634 23434

TAPE NO.		34.0	3	5.0		36.0		37.0
INTERVAL	. (	5 HiK	દ	HK	(	5HK		5HŘ
		ŧ	J COMPUN	ENT (M	(SEL)			
LEVELIA	GPAC	ULFF				DIFF	GPAC	DIFF
GE ()	-8-57	0.75	-9.57	0.74	Y.5d	0.78	-9.51	0.79
1000	1.68	-0.43				-0.35	4-44	2-34
900	2.50	0-29	1.86	-0.34	3.89	1.69	4-88	2.68
800	2.86	1.02	2.50	0.00	4 - 40		5.04	
700	3.07	1.47	2.83	1.23	4.71	3.11	5.13	3.53
600	3.21	1.78	3.03	1.60	4.84	3.41	5-17	3.74
500	3.30	1-45	3.16	1.34	4.90	3.09	5-17	3.35
400	3.34	0.81	3.23	0.76	4.91	2.38	5-13	2.60
300	3.36	1.24	3.27	1.15	4.65	2.75	5.96	2.93
200	3.33	1.74	3.26	1.67	4.76	3.18	4.93	3.34
100	3.2.	2-10	3.15	2.05	4.53	3.42	4.67	3.56
32	2.88	2.63	2.83	2.58	4.02	3.17	4.13	3.88
8	2.38	1.61	2.34	1.57	3.30	2.53	3-39	2.62
		,	v CUMPON	ENI (F.	/SEC)			
			GPAL					
GEÐ			-17.93					
1000	~25.89	-23.09	-25.62	-19.82	-24.59	-18.79	-27.83	-22.03
800	-27.50	-21.74	-20.07	-20.31	-25.00	-19.33	-20,56	-20.80
8C0			-25.61					
700	-25.72	-18.17	-25.02	-17.47	-24.21	-16.65	-24,95	-17.40
600			-24.39					
500			-23.73					
400	-23.39	-14-25	-22.98	-13-84	-22.36	-13.22	-22.79	-13.65
300			-22.12					
200			-21.02					
700			-19.33					
32			-16.74					
8	13.77	-6.41	-13.60	-6.24	-13.31	-5.95	-13.50	-6.14

### CASE DPG 1 GPAC OUTPUT DATA

## AIR TEMPERATURE AND VAPOR PRESSURE

TAPE NO. INTERVAL		34.0 6HR		35.0 6HR		6 <b>.</b> 0 ′ HR	37.0 6HR	
		AI	R TEMPE	RATURE	(DEG C)		* .	
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	21.46	0.86	21.48	0.88	20.28	-0.32	20.27	-0.33
900	21.79	0.59	21.62	0.62	20.34	-0.86	20.34	-0.86
800	21.94	-0.06	21.96	-0.04	20.37	-1.63	20.36	-1.64
700	22.02	-0.58	22.05	-0.55	20.38	-2.22	20.39	-2.21
600	22.06	-1.14	22.08	-1.12	20.38	-2.82	20.37	-2.83
500	22-10	-1.90	22.1.2	-1.88	20.33	-3.62	20.38	-3.62
400	22.09	-2.61	22.10	-2.60	20.36	-4.34	20.35	-4.35
300	22.07	-3.13	22.08	-3.12	20.35	-4.85	20.34	-4.86
200	22.04	-3.96	22.05	-3.95	20.34	-5.66	20.33	-5.67
100	21.95	-4.65	21.97	-4.63	20.34	-6.26	20.34	-6.26
32	21.82	-3.98	21.85	-3.95	20.34	-5.46	20.34	-5.46
8	21.69	-5-11	21.71	-5.09	20.35	-6.45	20.34	-6.46
2	21.52	-6.48	21.53	-6.47	20.34	-7.66	20.33	-7.67
0	21.08	XXXX	21.09	XXXX	20.31	XXXX	20.31	XXXX
			VAPOR P	RESSURI	E (MB)			
			, A. O					
LEVELIM)	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	11.64	1.62	11.81	1.79	13.08	3.06	13.09	3.07
900	12.04	1.67	12.19	1.82	13.49	3.12	13-48	3.11
800	12.33	1.74	12.45	1.86	13.77	3.18	13.77	3.18
700	12.61	1.88	12.71	1.98	14.04	3.31	14-04	3.31
600	12.84	1.74	12.93	1.83	14.27	3.17	14.27	3.17
500	13.09	1.76	13.19	1.86	14.53	3.20	14.53	3.20
400	13.32	1.76	13.41	1.85	14.76	3.20	14.76	3.20
300	13.59	1.79	13.67	1.87	15.02	3.22	15.02	3.22
200	13.85	1.73	1,3.92	1.80	15.26	3.14	15.26	3.14
100	14.19	1.91	14.29	2.01	15.59	3.31	15.59	3.31
32	14.51	3.92	14.,59	4.00	15.85	5.26	15.84	5.25
8	14.37	4.37	14.91	4,47		5.07	16.09	5.65
2	15.11	15.11	15.21	15,21	16.30	16.30	16.28	16.28
0	19.86	XXXX	15.95	XXXX	16.51	KAAX	16.90	XXXX

#### LASE LPG 1 GPAL UUSPUT DATA

### MISCELLANEUUS VARIABLES

TAPE NU. ENTERVAL	-	4.U HR		15.0 HR	_	16-0 DHR		97.0 SHK
		501	LTEMPE	KATURE	(1) 6 6 1	1		
LEVELIMI	GPAL	LIFF	<b>EPAL</b>	DIFF	GPAL	UIFF		91FE
-0.0	20.33	-19.37	20.32	-19.38	20.07	-19.63	20.05	-19.64
-0.125	22.47	-0.03	22.47	-0.03	22.44	-0.00	22 14	
-0.250	24.21	1.34	24.21	1.32		1.31		1.32
-0.500	22.78	1.00	22.70	1.00		1.00		1-C1
-1.000	19.16	1.10	19.15	1.09		1.10		1.16
-2.000	18.91	1.02		1.01	18.91	1.02	18.91	1.02
			wIND SE	FFD (H)	SECI			
LEVELIA	GPAL	DIFF	GPAL	DIFF	GPAC	DIFF	GPAL	Diff
8	13.50	0.0 B	13.80	6.40	13.72	ちょうご	13.92	6.52
2	10.00	ن 0 د . 4	5.86	4.10	10.51	4.01	10.66	4.96
	S	UKFACE	ENÉRGY	TERMS (	TA12EC	1 1 1 0 0 0		
PARAMETE	R GPAL	DIFF	GPAL	DIFF	GPAL		GPAU	
5(0)	5.77		5.77	0.17	5.77	0.17	5.76	
RENI	2.67	XXXX	2.87	XXXX	2.82	XXXX	2.82	
016.01	-1.04	XXXX		XXXX	-0.04	<b>አ</b> አአኦ	-0.04	
Q(E.C)	3.70	***	3.68	XXXX	2.80	XXXX	2.81	
915.01	0.22		U.23	XXXX	0.08	XXXX	0.08	***
	<b>\$</b> Ur	REACE SI	EAR ST	KESS (D	YNES/CM	SHIXTO		
PARAMETE	R GPAC	Diét	GPAC	DIFF	ijPΑ.,	01++	GPAC	
TAU	71.90	XXX			68.72	XXXX	71.10	XXXX
	INTEG	KATED EI	APOTRA	NSPIRAT	ICN IGH	76M 591)	(100	
PAKAMETE	A GPAS	9116	6245	DIFF	GP AC	Dist		
E	ु । इ.स.च	ALAA	4.90			XXA/	8 36	XXXX

#### LASE DPG & GRAL CUITOI DATA

#### VELOCITY CERPONENTS

23634

23439

K(CH SC/SEC) 23919

24079

9 ( 1 min 1	are an	4 7. 1	~ •				~ •	
TAPE NU.	341	8 <u>- 1</u> )	3	19 a d	4	C. O	4	1.0
INTERVAL	C !	aR.	ć	Erts.	o:	f És	6	HR
	-	ŧź	CDMPON	ENT IM/	SECT			
ELVELIA:	GPA)	0186	CPA(.	DHE	GPAC	DIFF	GPAC	DIFF
65 <b>U</b>	···\$ .59	C. 18	. 4.57	0.79	-9.57	0.79	-9.58	0.78
1000	Sec. 4. 5	2.33	1.76	-0.35	-0.21*	-2.32	1.68	-13.43
900	4 20	2.65	3.40	1.70	1.87	-0.34	2.51	0.30
C48	5.04	3.20	8.46	2.62	2.50	0.65	2.87	1.03
70 C	5-14	3.55	4.72	3.12	2.84	1.24	3.08	1.48
600	5.16	3.34	4.85	3.45	3.04	1.61	3.22	1.79
500	5.10	3.35	4.92	3.10	3.17	1.35	3.31	1.49
400	5.13	2.60	4.92	2.39	3.24	0.71	3.36	0.84
300	5.00	2.94	4. 69	2.76	3.28	16	3.38	1.26
200	4.93	3.34	4.78	3.19	3.20	1.67	3.35	1.77
100	4.67	3.56	4.54	3.43	3.10	2.05	3.23	2-12
32	4.13	38.6	4.03	3.78	2.84	2.59	2.89	2=64
8	3.39	2.62	3.31	2.54	2.35	1.55	2.39	1.62
		٧	COMPEN	IENT (M)	(550)			
LEVELINA	GPAC	DIFF	GP A C	DIFF	6PAL	DIFF	GPAC	DIFF
GEO :	-17.93	0.03	-17.92	0.04	-17.93	0.03	-17.93	0.03

# CASE DPG 1 GPAC SUTPUT DATA

# AIR TEMPERATURE AND VAPUR PRESSURE

TABE NO	3.	, <u>(</u> )	39	.0	40	- u		<b>.</b> 0
TAPE NO.	66		68		<b>c</b> iri	æ.	<b>6</b> H	S.
THIERANT	01	π <b>\</b>						
		ARR	. TEMPER	ATUKE 6	DEC -1			
. c. c. l. M. k	GPAL	0166	GPAC	D 18-F	GPAL	DIFF	GPAL	DIFF
TEAET(M)		-0.21	20.39	-0.21	23,462	1.02	21.58	0.98
1000	20-39	-0.69	20.52	-0.00	21.99	0.79	21.97	0.77
900	20.51	-1.45	20.50	-1.44	22.15	0.15	22.14	0.14
80ŭ	20.55	-2.02	20.58	-2.02	22.25	-0.35	22.25	-0.35
700	20.58		20.59	-2.01	22.29	-0.91	22.29	-0.91
600	20.58	-2.62	70.61	-3.39	22.34	-1.66	22.33	-1.07
500	20.60	-3.40	20.59	-4-1:	22.34	-2.36	22.33	-2-37
400	20.58	-4.12	20.59	-4.60	22.33	-2.87	22.32	-2.88
300	20.59	-4.61	20.61	-5.39	22.31	-3.69	22.30	-3.70
200	20.60	-5.40		-5.97	22.25	-4.35	22.24	-4.30
100	20.62	-5.98	20,63	-5.15	22.15	-3.65	22.13	-3.67
32	20.64	-5.le	20.05	-6.11	22 a 04	-4.76		-4.77
8	20.67	-0.13	20.69	-7.29	21.91	-0.09		-6.10
2	20.69	-7.31	20.71		21.50	XXXX	21.54	XXXX
0	20.76	XXXX	20.79	XXXX	21.50	******		
			VAPOR P	RESSURE	. (MB)		•	
	GPAE	0166	GP AC	DIFF	GPAL	DIFF	GPAC	DIFF
LEVEL(4)	13.15	3.13	13.15	3.13	11.88	1.86	11.71	1.04
1000		3.19	13.59	3.24	12.25	1.00	12.12	1.35
900	13.56	3.27	13.67	3.28	12.54	1.95	12.43	1,34
600	13.85	3.41	14.13	3.40	12.81	2.08	12.71	1.98
700	14.24	3.28	14.38	3.28	13.65	1.55	12.95	1.65
<b>6</b> 00	14.38	3.32	14.04	3.31	13.30	1.97	13.21	1.00
500	14.65	3,31	14.90	3.34	13.53	1.97	13.44	1.88
400	14.87		15.14	3.34	13.74	1.99	13.31	1-21
300	15.13	3.33	15.39	3.27	14.07	1.95	13.97	1.85
200	15.39	3.27	15.72	3.44	14.42	2.14	14.34	2.06
100	15.72	3.44	16.01	5.42	14.75	4.16	14.67	4.08
32	16.00	5.41	16.24	5.0	15.07	4.03	14.99	4.55
8	16.25	5.81	10.27	10.47	10.30	15.38	15.29	15.29
2	10.44	16.44 XXXX	17.13	XXXX		XXXX	10.09	<b>), X X</b> X
-1	1 / - 1 l	A A A A	41443					

### CASE DPG 1 GPAC OUTPUT DATA

## MISCELLANEOUS VARIABLES

TAPE NO.		36.0 58K	39.0 688		40.0 6HK			61.0 5HR
		sor	L TEMP	RATURE	IDEG L	)		
LEVEL(M)								
-0-0		-17.67				-17.30		-17.37
		1.05		1.11		1.13		1-14
-0.250		1.54	24.45	1.56	24.45	1.50	24.45	1.56
-0.500	22.19	1.01	22.79	1-01	22.18	1.00	22.10	1.00
-1.000	19.22	1.16	19.21	1.15	19.21	1.15	19.22	1.10
-2.000	24.57	0.68	24.57	<b>5.</b> € 8	24.57	6.68	24.57	6.68
			mIND SA	EED (M)	/ Set 1			
LLVELIMI	GPAC	UIEF	GPAL	DIFF	GPAC	DIFF	GPAC	D15F
8	13.52	6.52	13.72	6.32	13.80	6.40	13.98	6.58
2	10.85	5.15	16.71	5-01	5.69	4.29	10, 13	4.43
		OURFACE	ENERGY	TERMS I	LY/5EL	IXLOGO		
PAKAMETE	R GPAL	DIFF	GPAL	Dler	GPAL	υlēr	GIAL	DIFF
SIDI	5.76	0.16	5.76	0.16	5.76	0.16	5.76	0.16
RINI	2.80					XXXX		
C(C,O)	0.10					XXXX		
						XXXX		XXXX
		XXXX		***		XXXX	-0.22	
	Sui	CFACE SH	EAR SIR	(ESS 10)	(NES/CH	SQ) X10		
PARAMELE	R GPAC	DIFF	GPAC	DIFF	GPAL	0156	GPAL	DIFF
TAU	71.10	XXXX	68.76	XXXX	09.72	XXXX	71.498	XXXX
	INTEG	KALED EV	APÜTRAN	SP IKAT I	lin toma	CM SULX	100	
PAKANLTE	R GPAL	611 F	GPAL	DIFF	GPAL	DIFF	GPAL	Dlêt
£	0.70					XXXX		

#### CASE UPG I GPAC GUIPUI DATA

#### VELOCITY COMPONENTS

9594

9594

KECH SWSECE 9449

1100	J. U.		•				-	
TAPL NU.	. 4	U	4	5.0	4	0.Ū	4	7.0
INTERVAL	. 6	HR	6	HK	ز	HK	ن	HR
		U	CUMPUN	ENT LM	SECT			
LEVEL(M)	CPAL	UIFF	GPAC	DIFF	GFAL	DIFF	GPAL	DIFF
GEU	-0.30	10.05	-0 30	10.05	-0.30	10.05	-Ú.30	10.05
1000	0.57	-1.54	1.08	-1-03	1.00	-1-03	0.57	-1.54
900	1.45	-0.75	1.63	-0.57	1.04	-0.56	1.45	-0.75
800	1.84	0.01	1.94	0.11	1.94	0.10	1.54	0.0
700	2.08	0.48	2-15	0.50	2.15	0.55	2.08	0.40
600	2.25	0.8Z	2.30	0.58	2.30	0.67	2.25	G.82
500	2.39	0.57	2-41	0.60	2.41	0.60	2.38	0.50
400	2.46	-0.07	2-49	-0.03	2.49	~U. U3	2.47	-0.06
<b>30</b> 0	2-53	0-40	2.55	0.42	۷.55	0.43	2.53	0.40
200	2.54	0-95	2.55	0.91	2.56	0.97	2.54	0.95
100	2.49	1.39	2.50	1.39	2.50	1.39	2.49	1.39
32	2,20	2.01	2.26	2.01	2.27	2.02	2.26	2.01
ક	1.88	1-11	1.46	1.11	1.88	1.11	1.88	1.11
		٧	CUMPON	IENT (M.	/SEL1			
LEVELINI								
GEO	-6.43	11.03	-6.93	11.03	-6.92	11.03	-6.93	11.03
1000	-12.bi	-0.ĉi	-16.19	-10-39	-10.15	-10.39	-12.61	-6.81

### CASE LPG 1 GPAC DUTPUT DATA

# AIR TEMPERATURE AND VAPOR PRESSURE

TAPL NU.	4	4 . U	4	45.0	4	0.0	4	1.0	
INTERVAL	6	riR .		5HR				ohk	
							•		
		ΑI	R TEMPE	ERATUME	(DEG C)	1			
LEVELIMI	GPAC	DIFF	GPAC	DIFF	UPAL	ULFF	UPAL	0166	
1000	19-92	-0.68	19.92	-0.65	19.50	-3.64	19.96	-0.64	
900	20.37	-C.83	20.38	-0.82	20-40	-0.74	20.47	-0.13	
603	20.52	-1.40	20.52	-1.48	20.63	-1.3	20.85	-1.35	
700	4 61	- 1.99	26.61	-1.99	20.73	-1.57	20.75	-1.85	
600	20.63	-2.51	20,63	-2.57	20.11	-2.43	20.81	-2.34	
500	20.65	-3.35	20.65	-3.35	20.79	-3.21	20.83	-3.17	
400	20.63	-4.07	20.63	-4.07	20.7	-3.5i	20.84	-3.00	
00د	20-63	-4.57	26.63	-4.57	20.81	-4,35	20.86	4.34	
200	20.63	-5.37	£0.63	-5.37	20.82	-5.10	20.83	-5.12	
100	20.65	-5.95	26.84	-5.50	20.84	-5.70	20.94	-5.60	
32	20.50	-5.14	20.07	-5-13	20.09	-4.91	21.01	-4.79	
8	20.72	-6.08	26.71	-6-09	20.54	-5.66	21.	~5.69	
2	20.74	-7.20	20.73	-7.27	20.57	-7.03	21.09	-6.91	
ø	20.00	XXXX	20.85	XXXX	21.15	XXXX	21.49	XXXX	
			VAPUR P	KESSURE	(MB)				
LEVEL(M)	CPAL	UIFF	GPAL	DIFF	LPAL	DIFF	GFAL	DIFE	
<b>10</b> 00	12.53	2.51	12.54	2.52	12,57	2.55	12.50	2.54	
900	13.11	2.74	13.11	2.74	10.19	2.02	13.19	2.82	
<u> </u> 600	13.51	2.42	13.52	2.93	13.50	وانا ۽ تے	13.59	3.00	
70 <i>u</i>	13.04	3.11	13.65	3,12	13.93	3.26	13.94	3.21	
606	114	3.04	14.14	3.04	14.24	3.14	14.24	3.14	
500	14.45	3.12	14.45	3.12	14.55	3.27	14-57	3.24	
<b>4</b> 00	14:14	4-18	14.14	3.13	14.64	3.20	14,67	Ž. 31	
300	15.00	3.20	15.06	3.20	15.19	3.39	15.21	3.4.	
200	15.39	5.27	15.35	3.27	15.51	3.39	15.55	3.44	
100	15.82	3.54	15.83	3.55	15.99	3.11	10.02	3.74	
32	10.23	5.70	16.26	5.09	16.44	5.65	16.52	5.93	
ઠ	16.70	<b>0.3</b> 2	16.75	0.31	10-53	20.45	17,0c	.50	
2	17.04	17.04	17.64	17.04	17.10	17.	1., 14	10-10	
O	18.55	XXXX	15.51	<b>ፈ</b> ደ ላይ	10.75	7	2c.ol	XXXX	

# CASE DPG 1 GPAC OUTPUT DATA

# MISCELLANEOUS VARIABLES

TAPE NO. INTERVAL				5-0 5HR	46.0 6HR		47.0 6HR	
		102	L TEMPE	RATURE	(DEG C)			
LEVEL(M) -0.0 -0.125 -0.250 -0.500 -1.000	20.15 · 22.44 24.21	1.32	20.17 22.43 24.19	-19.53 -0.07 1.30	23.41 24.43	0.91 1.54 1.00	23.63 24.45	01FF -17.42 1.13 1.56 1.00
-2.000	18.90	1.01	18.91	1.02	24.57	6.68	24.57	
			WIND SE	PEED (M/	SEC)			
LEVELIM) 8 2	8.47	1.07		1.12	GPAC 8-52 7-34		8.47	1.07
	S	URFACE	ENERGY	TERMS (	LY/SEC)	(1000		
O(E+O)	5.76 2.79 0.10 2.48	0.16 XXXX XXXX	2.79 0.10	0.16 XXXX XXXX	GPAC 5.76 2.78 0.13 2.57 0.08	0.16 XXXX XXXX	GPAC 5.76 2.75 0.25 2.72 -0.22	XXXX
	SUR	FACE SH	EAR ST	RESS (D)	NES/CM S	801X10		
PARAMETE RAU	R GPAC 17.03	DIFF	GPAC 17-46	DIFF XXXX	GPAC 17.46	AAID XXXX	GPAC 17.08	DIFF XXXX
	INTEGR	ATED EV	APOTRAN	ISP1RAT1	ION (GM/C	M SQLX	100	
Paramete E		SIFF NXXX		DIFF	GP AC 5 - 40	DIFF XXXX	GPAC 5.90	DIFF

#### CASE CPG 1 GPAC DUTPUT DATA

#### **VELOCITY COMPONENTS**

KICH SCISECI	1884	1879	1884		1884
TAPE NO.	58.0	59.0	60.0		61.6
INTERVAL	6HR	éHR	6HR	1 14 14 14 14 14 14 14 14 14 14 14 14 14	6HR

#### U COMPONENT (M/SEC)

LEVELIMA	GPAC	DIFF	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF
GEU	-0.30	10.05	-0.30	10-05	-0.30	10.05	-0.30	10.05
1000	-2.63*	-4.74	-1.844	-3.95	-0.00*	-2.11	0.68	-1.42
900	-2.01*	-4.22	-1.98*	-4.19	0.68	-1.52	0.92	-1.28
800	-1.69*	-3.53	-1.66*	-3.50	1.01	-0.83	1.10	-0.73
700	-1.13*	-2.73	-1.11*	-2.71	1.37	-0.22	1-41	-0.18
600	-0.51*	-1.94	-0.50*	-1.93	1.78	0.36	1.79	0.36
500	0.12	-1.70	0.13	-1.69	2.20	0.39	2.21	0.39
400	0.75	-1.77	0.76	-1.77	2.61	0.09	2.62	0.09
300	1.38	-0.74	1.39	-0.73	3.03	0.90	3.03	0.90
200	1-99	0.40	1.99	0.41	3.42	1.83	3.42	1.83
100	2.59	1.48	2.59	1.48	3.75	2.64	3.75	2.64
32	2.83	2.58	2.83	2.58	3.74	3.49	3.74	3.49
8	2.51	1.74	2.51	1.74	3.23	2.46	3.23	2.46

#### V COMPONENT (M/SEC)

```
DIFF
LEVELIM) GPAC DIFF GPAC
                                      GPAC
                                               DIFF GPAC
                                DIFF
                               11.03 -6.93
                                              11.03 -6.93
                                                            11.03
               11.03 -6.93
         -6.93
  GEU
                                            -5.22 -16.33 -10.53
        -17.74 - 11.94 - 12.38
                              -6.58 -11.02
 1000
                                              -9.48 - 16.34 - 10.58
        -17.96 - 12.20 - 17.02 - 11.26 - 15.24
 400
        -17.67 - 11.45 - 17.59 - 11.16 - 15.93
                                              -9.50 - 16.32
                                                            -9.89
  800
                                             -8.58 -16.29
                                                            -8.74
  700
        -17.72 - 10.17 - 17.62 - 10.07 - 16.13
                                            -8.05 -16.24
        -17.55 -9.44 -17.50
                             -9.39 - 16.16
                                                            -8.13
  600
                -8.73 -17.26
                                             -7.55 - 16.14
                                                           -7.59
                               -8.71 - 16.10
        -17.28
  500
                -7.78 - 16.90 - 7.76 - 15.95
                                              -6.81 - 15.97
                                                            -6.83
  400
        -16.92
                                              -8.25 - 15.68
                                                            -8.26
                -9.00 -16.41
                               -8.99 - 15.67
  300
        -16.42
        -15.72 - 10.83 - 15.72 - 10.83 - 15.19 - 10.30 - 15.20 - 10.31
  200
        -14.57 -11.65 -14.58 -11.70 -14.22 -11.34 -14.24 -11.36
  100
        -12.70 -5.40 -12.70 -5.40 -12.51 -5.21 -12.51
                                                            -5.21
   52
               -3.02 - 10.37 - 3.01 - 10.24 - 2.88 - 10.24
                                                           -2.38
        -10.37
```

CASE OPG 1 GPAC OUTPOT DATA

#### ALK TEMPÉRATURE AND VAPUR PRESSURE

TAPE NU. INTERVAL	58 +0 ohR			9.0 HK				1.0 HR	
		AI	R TEMPE	RATURE	(DEO 6)				
LEVEL(M)	GPAL	DIFF	(PAL	UIFF	GPAL	UIFF	GPAL	DIFE	
1000	19.21	-1.39	15.25	-1.35	10.64	-1.76	18.85	-1.75	
900	20.74	-0.46	20.78	C -42	さけんじ1	-1.19	20.02	-1.18	
800	41.65	-0.35	21.67	-0.33	20.59	-1.41	20.50	-1.42	
700	22.26	-0.34	22.28	-0.32	20.52	-1.08	20.92	-1.60	
600	22.70	-0.50	22.72	-0.40	21.10	-2.10	21.10	-2.10	
500	23.62	-0.98	23.03	-0.57	21.18	-2.82	21.19	-2.81	
400	23.23	-1.47	23-24	-1.40	21.21	-3.49	21.22	-3.48	
300	23.37	-1.83	23.37	-1.83	21.24	-2.76	21.24	-3.96	
200	23-41	-2.59	23.41	-2.59	21.50	-4.76	21.29	-4.71	
100	23.27	-3.33	23.28	-3.32	21.44	-5.16	21.44	-5.16	
32	23.25	-2.55	23.25	-2.55	21.10	-4.04	21.76	-4.04	
8	23.43	-3.37	23.45	-3.35	22.24	-4.56	22.23	-4.57	
2	24.28	-3.72	24-29	-3.71	23.51	-4.49	23.50	-4.50	
0	24.74	XXXX	24.74	XXXX	24.41	XXXX	24.47	XXXX	
VAFOR PRESSURE (MB)									
LEVEL(M)	GPAL	UIFF	GP A C	DIFF	GPAL	DIFF	GPAĆ	DIFF	
1000	i0.79	0.77	11.14	1.12	11.71	1.69	11.71	1.69	
900	11.52	1.15	11.76	1.34	12.51	2.14	12.51	2.14	
800	12.02	1.43	12.16	1.57	13.64	2.45	13.04	2.45	
700	12.42	1.59	12.49	1.16	13.49	2.10	13.49	2.76	
600	12.76	1.66	12.80	1.70	13.05	2.75	13.86	2.76	
500	13.13	1.80	13.15	1.02	14.26	2.73	14.20	2.93	
400	13.50	1.94	13.52	1.96	14.65	3.09	14.60	3.10	
300	13.99	2.19	13.55	2.19	15.12	3.32	15.12	3.32	
200	14.57	2.45	14.58	2.46	15.60	3.54	15,66	3.54	
100	15.59	3.31	15.61	3.33	10.54	4.26	16.53	4.25	
32	17.02	0.43	17.02	6.43	17.77	7-16	17.77	7.18	
Ŕ	18.71	8.27	16.71	8.27	19,31	0.07	19.29	8.45	
2	23.40	23.48	23.49	23.49	25.13	23.13	23.12	23.12	
O	26.09	XXXX	26.09	XXXX	26.C3	XXXX	26.U4	XXXX	

### CASE LPG 1 GPAC DUTPUT DATA

### MISCELLANEOUS VARIABLES

TAPE NO. INTERVAL	-	98.ŭ ahK		54.0 :HK		G. O HR		51.0 5HR		
		sül	L TEMP	KATUKE	(المالة المالة)					
-0.250 -0.500 -1.000	23.45 23.71 24.49 22.75 19.21	1.00 1.00 1.15	23.44 23.71 24.44 22.79 19.21	1.21 1.21 1.55 1.01 1.15	29.67 24.44 22.79 17.21	-16.30 1.19 1.55 1.01	23.35 23.69 24.43 22.78 19.21	-16.35 1.19 1.54 1.00 1.15		
-2.000	24.51	5.€8		6.07		0.00	24.51	6.68		
WIND SPECE (M/SEC)										
LEVEL(M) 8 2	10.65	UIFF 3-28 -1-92	16.68	3.20		3.54	10.74			
	SURFACE ENERGY TERMS (LY/SEC)X1000									
0(E,0)	0.17 2.03 0.17 2.03 0.38	11FF 0.17 2XXX 2XXX 2XXX 2XXX	6PAC 5.77 2.59 C.17 2.04 C.38	G-17	08 AU 5.76 2.49 0.30 1.80 0.33	0.10	GPAC 5.76 2.49 0.31 1.86 0.33	DIFF 0.16 XXXX XXXX XXXX		
	5 Ú t	KFALE SH	EAR STR	ESS (UY	NE SZUM	56) X10				
PAKAMETE: Tau	4.30		GPAC 4.3C APUTRAN	XXXX	4.52	XXXX	4.32			
PAKAMETEI E	< GFAU 4.50	ulff XXXX	6PAC 4.60	DIFF	ษ <sup>р</sup> ลับ 4.40		GPAC 4.30	DIFF		

### LASE DPG 1 GPAC DUTPUT DATA

#### VELUCITY COMPONENTS

KICH SE/	SEL1 6	859	6	364	6	954	6'	354
TAPE NU.	6	7.0	6	9.0	6	9.0	70	<b>0 - 0</b>
INTERVAL	2	HŘ	21	HR .	21	HŘ	21	нк
		ł	J COMPONI	ENT (M)	/2FC)			
LEVEL(M)	GPAC	UIFF	<b>GP AC</b>	DIFF	GP AC	DIFF	GPAL	DIFF
GEC	-1.66	0.14	-1.66	0.14	-1.65	0.14	-1.65	0.14
1000	9.59	4.76	6.74	1.91	7.20	2.37	10.20	5.37
9 ū O	9.60	4.80	9.46	4-60	9.95	5.09	10.19	5.34
800	9.74	4.88	9.73	4.87	10.10	5.30	10.20	5.34
700	9.82	4.93	9.83	4.94	10.21	5.32	10.22	5.33
600	9.94	4.99	<b>S.</b> 95	5.00	16.25	2.34	10.29	5.34
500	10.10	5.48	10.10	5.48	10.40	5.78	10.41	5.79
400	10.30	5.71	10.30	5.71	10.50	5.97	10.50	5.47
300	10.51	7.39	10.50	7.30	10.71	7.59	10.72	7-60
200	10.57	8.98	10.56	8.97	10.72	9.13	10.73	9-14
100	10.22	10.22	10.22	10.22	10.33	10.33	10.33	10.33
32	9.08*	12.58	\$.08 <del>*</del>	12.58	9.15*	12.65	9.15*	
ь	7.45*	10.85	7.45*	10.85	7.51*	10.91	7.51*	10.91
		١	V COMPONE	ENT (II)	/SEL)			
TEAFT(W)	GPAC	DIFE	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
	~10.19		-10.19		-10.19		-10.19	0.02
1000	-9.70	-7.94		-7.88	-8.38	-6.62	-8.20	-6.44
900	-9.66	-7.98		-7.96	-6.18	-6.50	-8.17	-6.49
800	-9.60	-7.92	-5.58	-7.90	-8.17	-6.49	-8.17	-6.49
700	-9.46	-7.87	-9.46	-7.87	-8.14	-6.55	-8.14	-6.55
600	-9.25	-7.83	-9.25	-7.83	-8.0∠	-0.00	-8.02	-6.60
500	-8.85	-8.59	-8.83	-8.59	-7.72	-7.48	-7.72	-7.48
400	-8.12*	-8.76	-8.12*	-8.76	-7.16*	-7.80	-7,16*	-7.80
300	-7.03*		-7.04*		-6.24*		-6.24*	-8.04
200	-5.53*	-8.18	-5-53*	-8.18	-4.92*	-7.57	-4.92*	
100	-3.61*	-5.67	-3.61*	-5.67	-3.22*	-5.28	-3.22*	-5.28
32	-2.07*	-3.27	-2.07*	-3.27			-1.85*	-3.05
8	-1.40*	-1.58	-1.40*	-1.58	-1-25*	-1 -43	-1.26*	

### CASE LPG 1 GPAC UUTPUT DATA

### AIR TEMPERATURE AND VAPUR PRESSURE

TAPE NU. INTERVAL	67.0 2HR			:d • 0 :HK		69•0 <b>70•</b> 2HR 2HR		0.0 HR
		AI	K TEMPE	KATUKE	(DEG C)			
LEVEL(M)	GPAL	UIFF	GPAC	DIFF	6PAC	DIFF	GPAL	DIFF
1000	18.23	1.83	18.26	1.86	16.24	1.84	18.24	1.84
900	19.31	2.11	19.32	2.12	19.20	2.06	19.26	2.06
800	20.13	2.23	20.13	2.23	20.02	2.12	20.02	2.12
700	20.76	1.86	20.76	1.85	40 <b>.</b> 55	1.69	20.59	1.69
600	21.21	1.41	21.21	1.41	20.98	1.18	20.98	1.18
500	21.54	1.04	21.54	1.64	21.24	G.74	21.24	0.74
400	21.76	0.36	21.75	0.35	21.40	0.0	21.41	0.01
30C	21.90	-0.20	21.91	-0.19	21.51	-0.59	21.51	-0.59
200	21.99	-0.51	21.99	-0.51	21.59	-0.91	21.60	-0.90
100	21.94	0.24	21.94	0.24	21.61	-0.09	21.61	-0.09
32	21.57	-0.83	21.58	-C.82	21.30	-1.1C	21.30	-1.10
ಕ	20.87	-1.63	20.86	-1.64	20.63	-1.07	20.04	-1.86
2	19.33	-3.27	19.32	-3.28	19.18	-3.42	19.19	-3.41
O	17.54	XXXX	17.54	XXXX	17.40	XXXX	17.49	XXXX
			VAPOR P	KESSUR	(MD)			
LÉVEL(M)	GPAL	DIFF	GPAC	DIFF	GPAL	υIFF	GPAC	DIFF
1000	11.75	1.93	11.79	1.97	11.53	2.11	11.94	2.12
900	12.41	2.18	12.43	2.20	12.61	2.38	12.61	2.38
٥٥٥	13.02	2.65	13.03	2.66	13.23	2.86	13.23	2.86
700	13.66	2.41	13.69	2.44	13.50	2.65	13.88	2.63
600	14.23	2.43	14.23	2.43	14.45	2.65	14.44	2.64
500	14.70	2.42	14.71	2.43	14.52	2.64	14.92	2.64
400	15.02	2.15	15.02	2.15	15.23	2.36	15.23	2.36
300	15.21	1.36	15.22	1.37	15.42	1.57	15.43	1.58
200	15.28	0.20	15.27	0.15		0.39	15-48	0.40
100	15.33	U. 74	15.32	د7 . 0	しつ。りし	0.92	15.50	0.91
32	15.42	0.63	15.41	0.62	15.55	0.70	15.55	0.76
ಕ	15.69	0.51	15.69	0.51	15.60	0.62	15.81	0.63
2	16.29	16.29	16.29	16-29	16.37	16.37	16.37	16.37
O	16.99	XXXX	16.98	XXXX	17.04	XXXX	17.03	XXXX

# CASE DPG 1 GPAC DUTPUT DATA

### MISCELLANEOUS VARIABLES

TAPE NO. INTERVAL		7.0 hR		HK 8•0		9.0 HK		0.0 HR		
		5U1	L TEMPE	RATURE	(DEG C)					
LEVELIMA	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC			
-0.0	16.40	1.60	16.40	1.60	16.41	1.61	16.41	1.61		
-0.125	23.24		23.24	-0.43	23.23	-0.44	23.24	-0.43		
-0.250	24.81	0.31	24.81	0.31	24.61	0.31	24.82	0.32		
	22.85	0.18	22.85	0.18	22.65	0.18	22.85	0.18		
	19.13	0.30	19.13	0.30	19.13	0.30	19.13	0.30		
	18.91	0.30	18.91	0.30	18.90	0.29	18.91	0.30		
WIND SPEED 4M/SEC1										
LEVEL(M)	GPAL	01 <b>FF</b>	GPAC	DIFF	GPAL	DIFF	GPAL	UIFF		
8	7.57	4.17	7.57		7.61		7.61	4.21		
2	4.00			1.46	4.10	1.50	4.10	1.50		
	۵	URFACE	ENERGY	TERMS (	(LY/SEC)	x1000				
PARAMETÈ	R GPAC	DIFF	GPAC	DIFF	GP A C	DIFF	GPAC	DIFF		
S(D)	1.38	0.18	1.38	0.18	1.58	0.18	1.38	0.18		
RINI	0.00	XXXX	0.01	XXXX	-0.CO	XXX.	-0.00	XXXX		
	-1.62	XXXX	-1.62	XXXX	-1.57	. XX	-1.50	XXXX		
	1.31	XXXX	1.30	XXXX	1.25	XXXX	1.25	XXXX		
	0.33	XXXX	0.33	XXXX	0.32	XXXX	0.32	XXXX		
	SU	RFACE SH	EAR STR	RESS (D'	YNES/CM	Sw1x10				
PARAMETE	R GPAC	01FF	GPAC	OIFF	GPAL	DIFF	GPAC	DIFF		
TAU	11.08	XXXX	11.08	XXXX	11.20	XXXX	11.28	XXXX		
	INTEG	RATED EV	'APOTRAN	NSPIRAT	ION (GM/	CM SULA	(100			
DADAMETE	0 (0.46	UIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF		
PARAMETE		XXXX	0.50	XXXX		XXXX	0.60	XXXX		
£	0.60	***	0.00	7777	0.00	***************************************		*******		

### CASE LPG 1 GPAC UUTPUT DATA

#### VELOCITY COMPONENTS

KILM SEZ	SELI 69	154	69	149	6 (	359	68	364
TAPE NO.	71	L • O	7.	2.0	7.3	3.0	74	·• 0
INTERVAL	21	-K	21	1K	21	IR.	21	1R
		·	COMPONE	ENT (M)	/2F()			
LEVEL(M)	GPAL	UIFF	GPAC	UIFF	GPAL	DIFF		DIFF
GEO	-1.65	C.14	-1.66	0.14	-1.66	0.13	-1.66	0.14
1000	10.20	5.37	7.20	2.37	6.73	1.90	9.60	4.77
900	10.19	5.34	9.95	5.09	9.40	4.60	9.67	4.81
800	10.19	5.34	10.16	5.30	9.73	4.87	9.74	4.88
700	10.22	5.33	10.21	5.32	9.83	4.94	9.83	4.94
600	10.29	5.34	10.29	5.34	9.94	4.99	9.94	4.99
500	10.41	5.79	1C-40	5.78	10.11	5.49	10.10	5.48
400	10.56	5.97	10.56	5.97	10.30	5.71	10.30	5.71
300	10.72	7.60	10.71	7.59	10.51	7.39	10.51	7.39
200	10.73	9.14	10.73	9.14	10.56	8.97	10.57	8.98
100	10.33	10.33	10.33	10.33	10.22	10.22	10.22	10.22
32	9.15*	12.65	9.15*	12.65	9.07*	12.57	9.08*	
8	7.51*	10.91	7.51*	10-91	7.45*	10.85	7.45*	10.85
		,	V COMPONI	ENT (M.	/SEL)			
		,	V COMPONE		, ,			
LEVEL(M)	GMAL	UIFF	GP AC		GPAL		GPAC	DIFF
GEO	-10.19	0.02	-10.19	0.02	-10.19		-10.19	0.02
1000	-8.20	-6.44		-6.62	-9.64	-7.88	-9.70	-7.94
900	-8-18	-6.50	-8-18	-6.5C	-9.64	-7.96	-9.67	-7.99
٥٥٥	-8.17	-6.49	-8.17	-6.45	-9.58	-7.90	-9.60	-7.92
700	-8.14	-6.55	-8.14	-6.55	-4.45	-7.80	-9.46	-7.87
600	-8.02	-6.60	-8.02	-6.60	-4.25	-7.83	-9.25	-7.83
500	-7.72	-7.48	-7.73	-7.49	-6.63	-8.59	-6.83	-8.59
400	-7.16*		-7.164	80	-8.12*		-8.12*	
300	-6.23*		-6.34.		-7.03*		<b>-7.03</b> *	
200	-4.92*		-4.590		-5.53*		-5.53*	
100	-3.22*		-3.22*		-3.61*		-3.61*	
32	-1.85*		-1.85*			_	-2.07*	
8	-1.25*	-1.43	-1.25*	-1.43	-1.40*	-1.58	-1.40*	-1.58

### CASE DPG 1 GPAC DUTPUT DATA

### AIR TEMPERATURE AND VAPUR PRESSURE

TAPE NO. INTERVAL		71.0 2HR		'2.0 HR		73.0 74.0 2HR 2HR		
		AI	R TEMPE	RATURE	IDEG CI			
TEAFT(W)	GPAL	DIFF	GPAC	DIFF	GP AC	DIFF	GPAL	DIFF
1000	18-23	1.83	18.23	1.83	18.25	1.85	18.23	1.83
900	19.26	2.06	15.26	2.06	19.32	2.12	19.30	2.10
800	20.02	2.12	20.02	2.12	20.13	2.23	20.12	2.22
700	20.59	1.69	20.59	1.69	20.77	1.87	20.76	1.86
600	20.98	1.18	20.98	1.18	21.22	1.42	21.21	1.41
500	21.25	6.75	21.25	0.75	21.54	1.04	21.55	1.05
400	21.41	0.01	21.41	0.01	21.76	0.36	21.76	0.36
300	21.54	-0.56	21.55	-0.55	21.53	-0.17	21.93	-0.17
200	21.66	-0.84	21.66	-0.84	22.65	-0.45	22.05	-0.45
100	21.74	0.04	21.74	0.04	22.08	0.38	22.07	0.37
32	21.59	-0.81	21.61	-C.79	21.00	~0.52	21.88	-0.52
8	21.14	-1.36	21.15	-1.35	21.37	-1.13	21.36	-1.14
2	20.08	-2.52	20.09	-2-51	20.25	-2.35	20.23	-2.37
0	18.79	XXXX	18.79	XXXX	18.90	XXXX	18.87	XXXX
			VAPOR P	RESSURE	(MB)			
LEVEL(M)	GPAC	UIFF	GPAC	DIFF	GPAC	UIFF	GPAC	DIFF
1000	11.94	2.12	11.95	2.13	11.70	1.96	11.75	1.93
900	12.60	2.37	12.59	2.36	12.43	2.20	12.41	2.18
800	13.22	2.85	13.23	2.86	13.03	2.66	13.02	2.65
700	13.90	2.65	13.90	2.65	13.69	2-44	13.66	2.41
600	14-45	2.65	14.45	2.65	14.23	2.43	14.23	2.43
500	14.93	2.65	14.93	2.65	14.71	2.43	14.71	2.43
400	15.24	2.37	15.24	2.37	15.03	2.16	15.03	2.16
300	15.45	1.60	15.46	1.61	15-24	1.39	15.24	1.39
200	15.54	0.46	15.54	0.46	15.35	0.27	15.34	0.26
100	15.63	1.04	15.62	1.03	15.45	0.86	15.45	0.86
32	15.78	0.99	15.78	0.99	15.65	0.86	15.65	0.86
8	16.14	0.96	16.14	0.96	16.03	0.85	16.02	0.84
2	16.87	16.87	16.87	16.87	16.79	16.79	16.79	16.79
0	17.75	XXXX	17.75	XXXX	17.71	XXXX	17.71	XXXX

#### CASE OPG 1 GPAC OUTPUT DATA

### MISCELLANELUS VARIABLES

TAPE NU. Interval	-	1.0 HR		2.0 HR		73.0 <b>74.</b> 2HK 2HR					
		Suli	L TEMPE	RATURE	(DEG C)						
TEAET(W)		DIFF	-	UIFF	GPAL	DIFF	GPAC	DIFF			
-0.0	20.89	0.05	20.89	6.09		6.09	20.89	5.09			
-0.125	24.08	0.41	24.08	0.41		0.41	24.07	0.40			
-0.250	24.85	0.35		0.30		0.36	24.86	0.36			
-0.500	22.85	0.18		0.18	22.65	0.18	22.85	0.18			
	19.15		19.14		19.14	0.31	19.14	0.31			
-2.000	24-57	5.96	24.57	5.96	24.57	5.96	24.57	5.96			
WIND SPEED IM/SEC)											
LEVEL(M)	GPAL	UIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF			
8		4.21	7.61	4.21	7.58	4.18	7.58	4.18			
۷	4.18	1.58	4.18	1.58	4.14	1.54	4-14	1.54			
	5	URFACE E	ENERGY 1	TERMS (	LY/SEC1X	1000					
PARAMETER	R GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAL	DIFF			
5101	1.38	0.18	1.38	0.18	1.38	0.18	1.38	0.18			
R(N)	-0.11	XXXX	-C.12	XXXX		XXXX	-0.11	XXXX			
	-1.16	XXXX	-1.16	XXXX	-1.22	XXXX	-1.22	XXXX			
C(E.O)	1.64	XXXX	1.63	XXXX	1.65	XXXX	1.69	XXXX			
6(2.0)	-0.59	XXXX	-0.59	XXXX	-C.57	XXXX	-0.57	XXXX			
	SUR	FACE SHE	AR STRE	:55 LDY	NESZCM S	₩1X10					
PARAMETER	R GPAC	UIFF	GPAL	DIFF	GPAL	ULFF	GPAC	DIFF			
TAU	11.28	XXXX	11.30	XXXX	11.00		11.10	XXXX			
	INTEGR	ATED EVA	APOTRANS	PIRATI	ON (GM/C	M SQLX	100				
PARAMETER	R GPAC	UIFF	GP A L	DIFF	GPAL	ULFF	GPAC	DIFF			
E	1.10	XXXX	C.80	XXXX	0.80	XXXX	0.80	XXXX			

# CASE DPG 1 GPAC GUTPUT DATA

### VELUCITY CUMPONENTS

KICH SL/S	EL) 47	04	47	104	46	94	46	99
TAPE NU.	77	.0	7 8	3.0	79	) U	80	• 0
INTERVAL	2H		2H	1R	2 F	iR	2H	R
		U	COMPUNE	NI (M/	7FC)			
LEVEL(M)	GPAC	UIFF	GPAL	DIFF	GP AL	DIFF	GFAC	DIFF
GEO	-0.30	1.49	-0.3C	1.49	-0.30	1.49	-0.30	1.49
1000	6.53	1.70	9.23	4.40	9.23	4.40	6.53	1.70
900	9.07	4.21	9.23	4.37	9.23	4.37	9.07	4.21
800	9.21	4.35	9.23	4.37	9.22	4.36	9.21	4.35
700	9.24	4.35	9.24	4.35	9.24	4.35	9.24	4.35
600	9.29	4.34	9.29	4.34	9.29	4.34	9.29	4.34
500	9.39	4.77	9.39	4.77	9.39	4.77	9.39	4.77
400	9.58	4.99	9.57	4.98	9.57	4.98	9.57	4.98
300	9.83	6.71	9.83	6.71	9.83	6.71	9.83	6.71
200	9.98	8.39	9.99	8.40	9.99	8.40	9.99	
100	9.64	9.64	5-65	9.65	9.05	9.65	9.65	
32	8.37*	11.87	8.37*	11.87		11.87		
8		10.21	€.80*	10.20	<b>0.81</b> *	10.21	6.81*	10.21
			COMBOLO	. ALT /M/	SELL			
		٧	COMPON	ENI LM/	3607			
LEVEL(M)	GPAC	DIFF	GP 4C	DIFF	GPAL	UIFF	GPAC	DIFF
GEO		3.28	-6.93	3.28	-6.93	3.28	-6.93	3.28
1000	-7.36	-5.60	-7.51	-5.76	-7.52	-5.76	-7.36	-5.60
900	-7.47	-5.80	-7.49	-5.81	-7.49	-5.81		-5.80
800	-7.49	-5.82	-7.49	-5.82	-7.49	-5.82		-5.82
700	-7.48	-5.89	-7.48	-5.89	-7.48	-5.89	• • • •	-5.89
600	-7.43	-6.0i	-7.43	-6.01	-7.43	-6.01		-6.01
500	-7.23	-6.99	-7.24	-7.00	-7.24	-7.00	-7.24	
400	-6.76*		-6.76*		-0.70*		<b>-6.76</b> ★	
300	-5.81*		-5.81*		-5.81*	-7.61	-5.81*	
200	-4.25*		-4.25*		-4.25*		-4.26*	
100	-2.10*		-2.10*		-2.10*	-4.16	-2.10*	
32	-0.51*		-0.51*		-0.51*	-1.71	-0.51*	
<b></b>			-0-06*		-0.C6*	-0.24	-0.05*	-0.23

## CASE DPG 1 GPAC DUTPUT DATA

## AIR TEMPERATURE AND VAPUR PRESSURE

TAPE NO. INTERVAL		77.0 2FR		8•∪ hk		5•U HK		0.0 HR
		Al	K TEMPE	RATURE	IDEO (.)			
LEVEL(M)	GPAL	UIFF	CPAL	UIFF	GPAL	DIFF	GPAL	DIFF
1000	18.19	1.79	18.15	1.75	10.15	1.79	18.19	1.79
900	19.17	1.97	19.19	1.95	17.17	1.97	19.17	1.97
800	19.94	2.04	19.94	2.04	14.94	2.04	15.94	2.04
700	20.57	1.67	20.57	1.67	20.51	1.67	20.50	1.68
600	21.01	1.21	21.01	1.21	21.Ül	1.21	21.01	1.21
500	21.20	0.76	∠1.30	0.80	21.25	0.74	21.30	€.80
400	21.44	0.04	21.44	0.04	cl.45	0.05	21.44	0.04
300	21.55	-0.55	21.54	-0.50	21.50	-0.54	21.56	-0.54
200	21.65	-C.05	21.65	-0.85	21.63	0.81	21.68	-0.82
100	21.79	0.09	21.78	0.00	21.91	0.21	£1.90	0.20
32	21.63	-0.77	21.63	-0.77	21.92	-0.48	21.93	-0.47
ಕ	20-91	-1.59	20.91	-1.59	41.45	-1.05	21.45	-1.05
Ż	19.15	-3.47	15.14	-3.40	20.17	-2.43	20.16	-2.44
O	17.17	XXXX	17.18	XXXX	16.71	XXXX	18.70	XXXX
			VAPOR P	RESSURE	(Mb)			
LEVEL(M)	GPAL	UIFF	LPAL	DIFF	GPAL	DIFF	GPAC	DIFF
1000	11.92	2-10	11.92	2.10	11.92	2.10	11.91	2.09
900	12.54	2.31	12.54	2.31	12.54	2.31	12.54	2.31
800	13.12	2.75	13.12	2.75	13.12	2.75	13.11	2.74
700	13.81	2.50	13.81	2.50	13.81	2.50	13.81	2.56
000	14.40	2.66	14.46	2.06	14.40	2.00	14.40	2.66
500	15.63	2.75	15.03	2.75	12.04	2.70	15.04	2.76
400	15.40	2.53	15-41	2.54	15.41	2.54	15.41	2.54
300	15.58	1.73	15.59	1.74	15.59	1.74	15-59	1.74
200	15.52	0.44	15.52	0.44	15.57	0.49	15.57	0.49
100	15.34	0.75	15.34	0.75	15.46	Ŭ• 87	15.45	0.87
32	15.25	6.46	15.25	C.46	15.52	0.73	15.51	0.72
8	15.51	0.33	15.51	0.33	15.54	0.76	15.93	0.75
2	10.20	16.26	16.26	16.20	16.93	16.93	16.93	16.93
U	17.08	XXXX	17.08	XXXX	18.05	XXXX	18.06	XXXX

# CASE CPG & GPAC CUTPUT DATA

# MISCELLANEOUS VARIABLES

TAPE NU.		7.0 FR	76.0 75.0 2hk 2hK			80.0 2HR		
		SULL	TEMPER	RATURE	(DEG C)			
-0.0	GP /**	UIFF 1.55 -0.44	(PAC 16.32 23.24	01FF 1.55 -0.43	6PAC 21.69 24.69	01FF 6.09 0.42	GPAC 20.89 24.07	DIFF 6.09 0.40
-0.125 -0.250 -0.500 -1.000 -2.000	23.23 24.81 22.84 19.13 18.90	0.31 0.17 0.30 0.29	24.81 22.85 19.13 18.90	0.31 0.18 0.30 0.29	24.87 22.80 19.15 24.56	0.37 0.19 0.32 5.95	24.86 22.85 19.14 24.56	0.36 0.18 0.31 5.95
		i	mIND SP	EEي (M/	SEU)			
LEVEL(M) 8 2	GPAC 6.81 3.57	DIFF 3.41 0.97	GPAU 6.81 3.57	01FF 3.41 0.97	6PAU 6.81 3.62	01FF 3.41 1.02	GPAC 6.81 3.62	DIFF 3.41 1.02
	S	SURFACE	EN ER GY	FERMS (	LY/SEC)	KTOCO		
PAKAMETE S(D) R(N) Q(C+O)	R GPAC 1.38 0.05 -1.25	DIFF U.18 XXXX XXXX XXXX	GPAC 1.38 0.05 -1.25 1.09	DIFF O.18 XXXX XXXX XXXX	6PAC 1.38 -0.67 -0.91 1.40	4410 8130 XXXX XXXX XXXX	GPAC 1.38 -0.07 -0.91 1.46	DIFF O.18 XXXX XXXX XXXX
0(2.0) 0(E.0)	0.24	XXXX	0.24	XXXX	-0.62	XXXX	0.62	XXXX
	SUI	RFACE SH	EAR STE	1622 (U)	INES/LM	54) x10		
PARAMET!		CIFF	GPAC 6.82	O IFF XXXX	GPAL 0.82	DIFF XXXX	GPAC 6.78	DIFF
	INTEG	RATEL EV	VAPOTRAI	NSP1KAT	IUN IGMA	CM SUL	XICC	
PAKAMET:		LIFE	GPAC C.50	DIFF XXXX	6PAU 0=70	DIFF XXXX	GPAC 0.70	DIFF

### CASE LPG 1 GPAC EUTPOT DATA

#### VELCUITY CUMPLHENTS

KICM SE/SECT 4559 TAPE NU. 81.0 INTERVAL 2FR			4564 82∎0 2hR		87	1 684 87.0 2HR		1894 88.0 2HR			
U COMPUNENT (M/SEC)											
	LEVEL(M)	GPAL	DIFF	6P AL	DIFF	GPAL	Piff	OPAL	DIFF		
	GEU	-0.30	1.45	-C.31	1.49	-1.66	0.14	-1.66	0.14		
	1000	0 • Û0		6.63	3.00	10.20	5.37	7.13	2.30		
	900	8.59	3.13	8.71	85 و د	10.19	5.34	10.00	5.14		
	800	v • 70	3.92	c.77	3.91	10.20	5.34	16.17	5.31		
	700	ರ • ಕರ	5.97	8.85	3,96	10.23	5.34	10.23	5.34		
	600	8.90	4.00	8.95	4.00	10.32	5.37	10.32	5.37		
	500	9.09	4.47	5.1C	4.48	10.44	5.82	10.44	5.82		
	400	9.32	4.73	5.32	4.73	10.57	5.98	10.56	5.97		
	300	9.43	6.51	5.62	0.51	10.00	7.56	10-68	7.56		
	200	9.04	8.25	9.84	8.25	10.65	9.06	10.65	9.06		
	100			5.55	9.55		10.31	10.31	10.31		
	32	8.31*	11.81	€.31*	11.81	5.32*	12.82	9.31*	12.81		
	ઇ		10.16	6.76*		7.70≠		7.75*			
V COMPONENT (M/SEC)											
	LEVEL(M)	GPAC.	DIFF	GPAL	DIFF	GPAL	DIFF	GPAL	DIFF		
	GEU	-0.92	3.28					-10.19	0.02		
	1000	-0.02	-5.86	-9.C2		8.20		-8.39	-6.63		
	900	-8.95	-7.27	- 8.55		- 0.17		-8.18	-6.50		
	800	-8.91	-1.23		-7.25		-6.48	_	-6.48		
	700	-0.8l	-7.22	-6.84	-7.23		-6.50		-6.50		
	600	-0.67	-7.25				-0.49		-6.50		
	6.3.5					7					

-7.74\* -8.38

-6.61# -8.41

-8.37 -8.13 -7.54 -7.30

-0.044 -1.84 -0.65\* -1.85 -2.34\* -3.54 -2.36\* -3.56

-6.13\* -6.31 -6.14\* -0.32 -1.75\* -1.93 -1.75\* -1.93

--6.93\* -7.57

-4.85\* -7.50 -4.91\* -7.56 -4.93\* -7.58

- 2.45\* -4.51 -- 3.49\* -5.55 -- 3.51\* -5.57

-7.55 -7.31

-a.95+ -7.59

-6.06\* -7.86 -6.08\* -7.88

-8.30 -8.12

-7.74+ -8.38

-6.62# -8.42

-4.85\* -7.50

-2.45\* -4.51

50 Ü

40 U

300

200

100

## CASE EDG 1 GPAC OUTPUT CATA

# ALK TEMPERATURE AND VAPOR PRESSURE

TAPE NG.	81.0 2HR		82.0 2HK		87.0 2HR		88.0 2HR			
AIR TEMPERATURE (DEG C)										
LLVC1 (M)	GPAC	DIFF	GPAL	DIFF	GPAL	UIFF	GPAL	DIFF		
TEAET(W)	18.20	1.80	18.18	1.78	18.28	1.88	18.28	1.88		
1000 900	19.23	2.03	15.21	2.01	19.31	2.11	19.32	2.12		
800	20.05	2.15	20.03	2.13	20.07	2.17	20.06	2.16		
700	20.73	1.83	20.72	1.62	20.62	1.72	20.62	1.72		
600	21.23	1.43	21.22	1.42	20.99	1.19	20.90	1.18		
500	21.59	1.09	21.58	1.08	21.24	0.72	21.22	0.72		
400	21.81	0.41	21.75	0.39	21.35	~Ü.Üb	21.35	-0.05		
300	21.95	-0.15	21.94	-0.16	21.45	U.67	21.43	-0.67		
	22.08	-0.42	22.07	-0.43	21.44	-1.06	21.45	-1.05		
200 100	22.23	0.53	22.22	0.52	21.32	-0.38	21.31	-0.39		
32	22.19	-0.21	22.18	-0.22	20.81	-1.59	∠0.81	-1.59		
32 8	21.66	-0.84	21.65	- C.65	20.03	-2.47	20.02	-2.48		
2	20.30	-2.30	20.29	-2.31	10.36	-4.24	18.35	-4.25		
0	16.76	XXXX	18.76	XXXX	10.54	XXXX	16.54	XXXX		
U	10.10	AAAA		******	-					
VAPOR PRESSURE (MB)										
TEAET(W)	GPAL	DIFF	GPAC	DIFF	GPAL	UIFF	GPAL	DIFF		
1000	11.78	1.96	11.75	1.93	11.97	2-15	11.96	2.14		
900	12.39	2.16	12.36	2.13	12.65	2.42	12.60	2.43		
800	12.94	2.57	12.92	2.55	13.29	2082	13.30	2.93		
700	12.62	2.37	13.61	2.30	10.51	2.00	13.91	2.66		
600	14.26	2.46	14.26	2.46	14.41	2.01	14.41	2.61		
500	14.84	2.56	14.84	2.56	14.04	2.56	14.83	2.55		
400	15.21	2.34	15.21	2.34	15-11	2.24	15.12	2.25		
300	15.40	1.55	15.39	1.54	15.32	1.47	33	1.48		
200	15.38	0.30	15.38	0.30	15.43	0.35	<u>.</u> 4	0.36		
100	15.30	0.71	15.31	0.72	15.55	0.96	15.50	0.97		
32	15.39	0.60	15.38	0.59	15.71	0.92	15.71	0.92		
25	15.84	0.66	15.83	0.65	16.03	0.85	16.03	0.85		
2	16.89	16.89	16.88	16.88	16.80	16.86	16.86	16.86		
ō	18.07	XXXX	18.07	XXXX	17.76	XXXX	17.70	XXXX		

### CASE LPG 1 GPAC DUTPUT DATA

### MISCELLANEOUS VARIABLES

TAPE NU. INTERVAL	81.0 2HR		82 <b>.</b> 0 ≥HK		87.0 2HR		88.0 ∠hR			
SUIL TEMPERATURE (DEG C)										
LEVEL(M)	GPAC	DIFF	GPAL	DIFF	PAL	DIFF	GPAC	DIFF		
-0.ŭ	20.69	6.05	20.89	6.C9		1.61	16.41	1.61		
-0.125		0.40	24.08	0.41	23.25	-0.42	23.24	-0.43		
	24.00	0.36	24.86	0.36	24.81	0.31	24.81	0.31		
-0.500	22.85	C - 18	22.84	0.17	22.06	0.19	22.85	0.18		
-1.000	19.15	U.32	19.15	0.32	19.13	0.30	19.12	0.29		
-2.000	24.50	5.95	24.56	5.95	18.88	0-27	18.90	0.29		
wIND SPEED (M/SEC)										
LEVEL(M)	GPAC	ULFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF		
Ö	6.76	3.36	6.76	3.36	7.90	4.56	7.95	4.55		
2	3.58	0.98	3.58	0.98	4.15	1.55	4.14	1.54		
	3	JURFALE	ENERGY	TERMS (	(LY/SEL)	X100C				
PARAMÈTE	R GPAC	CIFF	GPAC	UIFF	GPAL	UIFF	GPAC	DIFF		
5(0)	1.30	C.18	1.38	0.10	1-38	0.18	1.38	0.18		
R(N)	-0.05	XXXX	-0.06	XXXX	0.04	XXXX	0.04	XXXX		
	-0.93	XXXX	-0.94	XXXX	-0.46	XXXX	-0.47	XXXX		
C(E,O)	1.49	XXXX	1.49	XXXX	0.48	XXXX				
012.01	-0.60	XXXX	-0.60	XXXX	0.05	XXXX	0.04	XXXX		
	SUF	REALE SH	EAR STE	RESS (DY	(NES/LM	Sul X10				
PARAMETE	R GPAC	Ulff	EPAL	UIFF	GPAL	DIFF	GPAC	DIFF		
TAU	6.56	XXXX	¢.56	XXXX		XXXX	3.18	XXXX		
INTEGRATED EVAPOTRANSPIRATION (GM/CM SW)X100										
PARAMETE	R GPAC	ÜIFF	GPAC	DIFF	GP AL	UIFF	GPAC	DIFF		
Ε	0.80	XXXX	0.80	XXXX	0.70	XXXX	0.70	XXXX		

### CASE DPG 1 GPAL UUTPUT DATA

### VELCUITY COMPONENTS

KICM SC/SEC) 679		1	679	68 <del>4</del>		679		
TAPE NO.	10	ܕ0	10	1.0	102.0		10	3.0
INTERVAL	1	HR	11	1 HR		HR	1	
					_		•	
		U	COMPON	ENT (M/	SEC )			
LEVEL(M)	GPAL	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	UIFF
GEO		0.00		0.00	0.00	0.00	0.00	0.00
1000	9.05	0.69	7.57	-C.75	7.69	-0.66	9.20	0.84
900	9.08	-1.19	9.08	-1.19	9.19	-1.07	9.19	-1.07
800		1.28	9.11	1.28	9.19	1.36	9.20	1.37
700	9.14	1.84	9.14	1.84	9.19	1.90	9.19	1.89
600		1.92	9.17	1.92	9.21	1.96	9.21	1.96
500	9.18	2.55	9.19	2.56	9.21	2.56	9.21	2.58
400	9.21	3.42	9.22	3.43	9.23	3.44	9.24	3.45
300	9.35	0.52	9.35	6.52	9.36	6.53	9.36	0.53
200	9.81*	10.70	9.80*	10.69	9.62*	10.71	5.82*	10.71
100	8.29*	10.35	8.29*	10.35	8.3C*	10.36	8.30*	10.36
32	4.38	2.99	4.39	3.00	4.39	3.00	4.39	3.01
8	3.33	2.33	3.34	2.34	3.34	2.34	3.34	2.34
		V	COMPONI	EsiT (M)	'SE( )			
LEVEL(M)			GPAC	DIFF	GPAL	DIFF	GPAL	DIFF
GEO	-8.27	0.02	-8.27	0.02	-8.27	0.02	-8.27	0.02
1000	-5.02*	-7.58	-5.49*	-8.05	-4.75*	-7.31	-4.20*	-6.76
900	-5.00*	-8.33	-4.99*	-8.32	-4.18*	-7.51	-4.18*	-7.51
800	-4.98*	-7.52	-4.97*	-7.51	-4.16*	-6.72	-4.19*	-6.73
700	-4.91*	-7.42	-4.90*	-7.41	-4.19*	-6.70	-4.19*	-6.70
600	-4.88*	-7.52	-4.88*	-7.52	-4.15*	-6.82	-4-18*	-0.82
500	-4.82*	-7.63	-4.82*	-7.63	-4.20*	-7.01	-4-19*	-7.00
400	-4.69*	-8.03	-4.68*	-8.02	-4.15*	-7.49	-4.15*	-7.49
300	-4.12*	-9.02	-4.12*	-9.02	-3.69*	-8.59	-3.69*	-8.59
200	-1.28*		-1.28*	-6.35	-0.97*	-6.04	-0.97*	-6.04
100	2.90	-0.66	2.89	-0.67	3.00	-0.50	3.06	-0.50
32	3.94*	4.09	3.93*	4.08	3.95*	4.1G	3.95*	4.10
B	3.45*	4.79	3.95*	4.79	3.95*	4.79	3.95*	4.79

### AIR TEMPERATURE AND VAPUR PRESSURE

TAPE NO.	100. 1hR		101.0 1HR		102.u 1HR		103.0 1HR	
		AI	R TEMPE	RATURE	(DEG C)			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	18.06	1.06	18.06	1.06	18.00	1.06	18.06	1.06
900	18.95	1.05	18.96	1.06	18.95	1.05	18.95	1.05
800	19.06	0.86	19.66	0.86	19.65	0.85	19-64	0.84
700	20.41	0.91	20.41	0.91	20.39	0-85	20.39	0.89
600	21.09	0.99	21.09	0.99	21.05	0.95	21.05	0.95
500	21.41	0.51	21.42	0.52	21.33	0.43	21.33	0.43
400	21.86	0.06	21.86	0.06	21.74	-0.06	21.75	-0.05
30 <b>0</b>	21.87	-0.43	21.87	-0.43	21.71	-0.59	21.72	-0.58
200	21.14	-0.96	21.14	-0.96	20.95	-1.15	20.95	-1.15
100	21.95	-0.05	21.94	-0.06	21.85	-0.15	21.85	-0.15
32	24.09	-0.51	24.08	-0.52	24.04	-0.56	24.04	-0.56
8	23.29	-1.31	23.29	-1.31	23.27	-1.33	23.27	-1.33
2	19.10	-4.90	19.12	-4.88	19.09	-4.91	19.11	-4.89
0	14.87	XXXX	14.90	XXXX	14.87	XXXX	14.90	XXXX
			VAPOR P	RESSURI	(MB)			
TEAFT( W)	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF
1000	11.96	0.55	11.96	0.55	12°C1	0.60	12.01	0.60
900	12.56	0.36	12.57	0.37	12.61	0.41	12.61	0.41
600	12.92	-0.04	12.94	-0.02	12.98	0.02	12.97	0.01
700	13.56	-0.19	13.55	-0.20	13.01	-0.14	13.61	-0.14
600	14.33	0.11	14.33	0.11	14.38	0.16	14.38	0.16
500	15.61	0.63	15.61	0.63	15.67	0.69	15.66	0.68
400	15.97	-0.12	15.97	-0.12	10.03	-0.06	16.04	-0.05
300	16.49	-0.35	16.49	-0.35	16.54	-0.30	16.55	-0.29
200	15.94	-0.58	15.94	-0.58	16.02	-0.50	16.01	-0.51
100	14.81	-2.47	14.81	-2.47	14.84	-2.44	14.83	-2.45
32	13.42	0.80	13.42	0.80	13.44	0.82	13.44	0.82
ಕ	13.53	0.74	13.54	0.75	13.54	0.75	13.54	0.75
2	14.88	14.88	14.89	14.89	14.89	14.89	14.88	14.88
0	16.24	XXXX	16.25	XXXX	16.25	XXXX	16.24	XXXX

### CASE CPG 1 GPAC UNIPOT DATA

TAPE NO. INTERVAL		00.0 LhR	101.0 1HR		102.0 1HK		103.0 1HR				
		S01	L IEMPE	RATURE	(DEG C)						
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF			
-0.0	14.94	1.34	14.95	1.35	14.94	1.34	14-95	1.35			
-0.125	23.78	-0.33	23-78	-0.33	23.78	-0.33	23.77	-0.34			
-0.250	24.94	0.11	24.95	0.12	24.55	0.12	24.94	0.11			
-0.500	22.87	0.04	22.86	0.03	22.67	0.04	22.87	0.04			
-1.000	19.12	0.12	19.12	0.12	19.12	0.12	19.12	0.12			
-2.000	18.90	0.12	18.90	0.12	18.90	0.12	18.91	0.13			
WIND SPEED (M/SEC)											
LEWELINA	GPAC	DIFF	GPAC	DIFF	GP AC	DIFF	GPAL	DIFF			
TEAST( W)	5.17	-	5.17		5.17	_		3.87			
8 2	2.60	1.70	2.60	1.70	2.60	1.70	2.60	1.70			
	:	SURFACE	ENERGY	TERMS	LLY/SEL)	X1000					
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GP AU	DIFF	GPAC	DIFF			
S(D)	0.31	0.11	0.31	0.11	0.31	0.11	0-31	0.11			
R(N)	-0.15		-0.15	XXXX	-0.16	XXXX	-0-15	XXXX			
	-0.39	XXXX	-0.40	XXXX	-0.40	XXXX	-0.40	XXXX			
OLE.O)	0.26		0.26	XXXX	0.26	XXXX	0.26	XXXX			
C(S.0)	-0.01	XXXX	-C.01	XXXX	-0.01	XXXX	-0.01	XXXX			
	SIJ	RFACE SI	HEAR STE	(ESS (D)	AVF2\CW	Sulxio					
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF			
TAU	0.72		C.72	XXXX	0.70	XXXX	0.72	XXXX			
	INTEG	KATED E	VAPOTRAI	NSPIRAT	IEN IGM	CM SUL	100				
PARAMET E	R GPAC	DIFF	CPAL	DIFF	GPAL	DIFF	GPAC	DIFF			
E	0.30		0.40	XXXX		XXXX	Ü.30	XXXX			

## CASE CPG 1 GPAC OUTPUT DATA

### VELOCITY COMPONENTS

KICH SG/SEC) 679			6	. 19	674		669	
TAPE NO.	104		105	5.0	106	. 0	107	-0
INTERVAL	18		1HR		1 HR		1HR	
INILIVAL	-,,							
		υ	COMPONE	NT (M/	SEC )			
LEVEL(M)	GPAC	DIFF	69 AC	DIFF	GPAC	DIFF	GPAC	DIFF
GEO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	9.20	0.84	7.70	-0.66	7.57	-0.78	9.05	0.69
900	9.19	-1.07	9-19	-1.07	9.08	-1.19	9.08	-1.19
800	9.19	1.36	9.19	1.36	9.11	1.28	9.10	1.27
700	9.19	1.85	9.19	1.90	9-13	1.83	9.14	1.84
600		1.96	9.21	1.96	9.17	1.92	9.17	1.92
500		2.59	9.21	2.58	9.19	2.56	9.19	2.56
400	9.23	3.44	5.23	3.44	9.21	3.42	9.21	3.42
300	9.36	6.53	9.36	6.53	9.35	6.52	9.35	6.52
200	9.82*	10.71	5.82*	10.71	9.80*	10.69	9.30*	10.69
100	8.30*	10.36	8.30*	10.36	6.29*	10.35		10.36
32	4.39	3.00	4.39	3.00	4.38	2.99	4.38	
8		2.34	3.33	2.33	3.31	2.33	3.33	2.33
		M	COMPONI	ENT 1M/	Se( )			
		V	CUMPUNI	CIVI CM7				
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAL			DIFF
GEO	-8.27		-8.27	0.02	-8-28		-8.27	
1000	-4.20*		-4.75*	-7.31	-5.49*		-5.02*	
900	-4.18*		-4.18*	-7.51	-4.59*		-5.00*	
800	-4.18*		-4.18*	-6.72	-4.97*		-4.98*	
700	-4.19*		-4.19*	-6.70	-4.90*		-4.91*	
600	-4.18*		-4.18*	-6.82	-4.88*		<b>-4</b> ∞∂8 <b>*</b>	
500	-4.19*		-4.19*	-7.00	-4.62*	-7.63	-4.82*	
400	-4.15*		-4.15*		-4.69*		-4.69*	
300	-3.69*		-3.69*		-4.12*		-4.12*	
200	-0.97*		-0.97*		-1.27*		-1.28*	
100	3.06			-0.50	2.89			-0.66
32	3.95*	4.10		4.10		4.08		4.09
3 <u>2</u> 8		4.79	3.95*	4.79	3.55*	4.79	3.95*	4.79

### AIR TEMPERATURE AND VAPOR PRESSURE

TAPE NO. INTERVAL	104.0 1HR			5.0 HR	106.0 1HR		107.0 1HR	
		AI	R TEMPE	RATURE	.DEG C)			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF
1000	18.06	1.06	18.06	1-06	18.05	1.05	18.06	1.06
900	18.95	1.05	18.94	1.04	18.96	1.06	18.95	1.05
800	19.64	0.84	19.65	0.85	19.68	0.88	19.67	0.87
700	20.38	0.88	20.38	0.88	20.42	0.92	20.41	0.91
600	21.04	0.94	21.05	0-95	21.09	0.99	21.09	0.99
500	21.33	0.43	21.33	0.43	21.41	0.51	21-41	0.51
400	21.75	-0.05	21.74	-0.06	21.86	0.06	21.86	0.06
300	21.72	-0.58	21.72	-0.58	21.87	-0.43	21.87	-0.43
200	20.96	-1-14	20.95	-1.15	21.14	-0.96	21.14	-0.96
100	21.84	-0.16	21.84	-0.16	21.95	-0.05	21.95	-0.05
32	24.08	-0.52	24-09	-0.51	24.12	-0.48	24.14	-0.46
8	23.67	-0.93	23.68	-0.92	23.69	-0.91	23.69	-0.91
2	20.86	-3-14	20.87	-3-13	20.87	-3.13	20.88	-3.12
0	18.01	XXXX	18-01	XXXX	18.01	XXXX	18.02	XXXX
			VAPUR P	RESSURE	(MB)			
LEVEL(M)	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	12.01	0.60	11.99	0.58	11.96	0.55	11.95	0.54
900	12.61	0.41	12.61	0.41	12.56	0.36	12.55	0.36
800	12.97	0.01	12.98	0.02	12.93	-0.03	12.93	-0.03
700	13.62	-0.13	13.61	-0.14	13.56	-0.19	13.55	-0.20
600	14.38	0.16	14.38	0.16	14.34	0.12	14.33	0.11
500	15.66	0.68	15.66	0.68	15.61	0.63	15-61	0.63
400	16.03	-0.06	16.03	-0.06	15.97	-0.12	15.97	-0.12
300	16.55	-0.29	16.55	-0.29	16.48	-0.36	16-49	-0.35
200	16.01	-0.51	16.02	-0.50	15.94	-0.58	15.94	-0.58
100	14.84	-2.44	14.83	-2.45	14.81	-2.47	14-81	-2.47
32	13.50	0.88	13.50	0.88	13.49	0.87	13.48	0.86
8	14.02	1.23	14.02	1.23	14.02	1.23	14.02	1.23
2	16.73	16.73	16.73	16.73	16.74	16.74	16.75	16.75
0	19.49	XXXX	19.49	XXXX	19.51	XXXX	19.52	XXXX

TAPE NÚ. Interval			105+0 1HR		106.0 1HR		107.0 1HR				
SUIL TEMPERATURE (DEG C)											
TEAET(W)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
-0.0	20.78	7.18	20.77	7.17	20.78	7.18	20.78	7.18			
-0.125	24.31	0.20	24.31	0.20	24.30	0.19	24.29	0.18			
-0.250	24.96	0.13	24.96	0-13	24.96	0.13	24.96	0.13			
-0.500	22.87	0.04	22.86	0.03	22.86	0.03	22.85	0.02			
-1.000	19.13	0.13	19.12	0.12	19.13	0.13	19.13				
-2.000	24.59	5.81	24.59	5.81	24.59	5.81	24.59	5.81			
WIND SPEED (M/SEC)											
TEAFT(W)	GPAC	DIFF	GPAL	DIFF	GPAL	DIFF	GPAC	DIFF			
8					5.17						
2					2.61						
SURFACE ENERGY TERMS (LY/SEL)X1000											
PAKAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
		0.12			0.31	0.11	0.31	0-11			
R(N)	-0.52	XXXX	-0.52	XXXX	-0.52	XXXX	-0.52	XXXX			
010,01	-0.26	XXXX	-0.26	XXXX	-0.26	XXXX	-0.25	XXXX			
		XXXX	0.53	XXXX	0.53	XXXX	0.53	XXXX			
	-0.79	XXXX	-C.79	XXXX	-0.78	XXXX	-0.78	XXXX			
	SUR	RFACE SH	EAR ST	KESS (D	YNES/CM	Su) X10					
PARAMETE	R GPAL	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
IAU	0.70	XXXX	0.70	XXXX	0.70	XXXX	0.70	XXXX			
	INYEGH	RATED EV	APGTRA	NSPIRAT	ION (GM/	CM SQLX	100				
PARAMETE	R GPAL	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF			
E	0.30	XXXX	0.20	XXXX	0.10	xxxx	C.30	XXXX			

### VELOCITY COMPONENTS

TAPE NO. 101:0 1HR 1HR 1HR 1HR 1HR 1HR 1HR  U COMPONENT (M/SEC)  LEVEL(M) GPAL DIFF GPAC DIFF GPAL DIFF GEO -0.30 -0.30 -0.30 -0.30 -0.30 -0.30 -0.30 -0.30 -0.30 -0.30 -0.30 -0.30 -0.30 -0.30 1000 8.82 0.46 7.33 -1.03 7.46 -0.90 8.97 0.61 900 8.85 -1.42 8.85 -1.42 8.96 -1.31 8.96 1.31 800 8.88 1.05 8.88 1.05 8.96 1.13 8.96 1.13 700 8.91 1.61 8.91 1.61 8.96 1.66 8.95 1.65 600 8.93 1.68 8.94 1.69 8.98 1.73 8.97 1.72 500 8.95 2.32 8.95 2.32 8.95 2.36 8.98 2.35 400 8.98 3.19 8.98 3.19 9.00 3.21 9.01 3.22 300 9.11 6.28 9.11 6.28 9.12 6.36 9.12 6.29 200 9.61* 10.50 5.61* 10.50 9.62* 10.51 5.62* 10.51 32 4.68 2.69 4.07 2.69 4.08 2.69 4.09 2.70 8 3.09 2.09 3.09 2.09 3.09 2.09 3.09 2.09  V COMPUNENT (M/SEL)  LEVEL(M) GPAL DIFF GPAC DIFF GPAC DIFF GPAC DIFF GEO -5.02* -8.35 -5.02* -8.35 -4.21* -7.54 -4.21* -7.54 6.00 -5.02* -8.35 -5.02* -8.35 -4.21* -7.55 -4.20* -6.78 4.22* -6.78 6.00 -4.93* -7.44 -4.93* -7.44 -4.22* -6.73 -4.21* -6.72 -4.90* -7.54 -4.91* -7.55 -4.20* -6.84 -4.22* -7.03 -4.22* -7.03 -4.72* -8.06 -4.72* -8.06 -4.18* -7.52 -4.18* -7.52 -4.18* -7.55	KILM SE/	KILM SC/SEC) 479		4	94	484		494	
U COMPONENT (M/SEC)  LEVEL(M) GPAL DIFF GPAC DIFF GPAL DIFF GEO -0.30 -0.31 -0.31 -0.50 -0	TAPE NO.	101	. 3	109.0		110.0		111	L • O
LEVEL(M) GPAC DIFF GPAC DIFF GPAC DIFF GPAC DIFF GEO -0.30 -				1HR		1HR		11	IR.
LEVEL(M) GPAC DIFF GPAC DIFF GPAC DIFF GPAC DIFF GEO -0.30 -									
GEO			U	COMPONE	ENT (M/	SEC.)			
1000 8.82 0.46 7.33 -1.03 7.46 -0.90 8.97 0.61 900 8.85 -1.42 8.85 -1.42 8.96 -1.31 8.96 -1.31 800 8.88 1.05 8.88 1.05 8.96 1.13 6.96 1.13 700 8.91 1.61 8.91 1.61 8.96 1.66 8.95 1.65 600 8.93 1.68 8.94 1.69 8.98 1.73 8.97 1.72 500 8.95 2.32 8.95 2.32 8.99 2.36 8.98 2.35 400 8.98 3.19 8.98 3.19 9.00 3.21 9.01 3.22 300 9.11 6.28 9.11 6.28 9.12 6.30 9.12 6.29 200 9.61* 10.50 9.61* 10.50 9.62* 10.51 9.62* 10.51 100 8.09* 10.15 8.08* 10.14 8.09* 10.15 8.09* 10.15 32 4.68 2.69 4.07 2.69 4.08 2.69 4.09 2.70 8 3.09 2.09 3.09 2.09 3.09 2.09 3.09 2.09  V COMPUNENT (M/SEC)  LEVEL(M) GPAC DIFF GPAC DIFF GPAC DIFF GPAC DIFF GEO -6.92 1.37 -6.93 1.36 -6.93 1.36 -6.92 1.37 1000 -5.04* -7.80 -5.40* -7.96 -4.66* -7.22 -4.22* -6.78 900 -5.02* -8.35 -5.02* -8.35 -4.21* -7.54 -4.21* -7.54 800 -5.01* -7.55 -5.00* -7.54 -4.20* -6.74 -4.21* -6.72 600 -4.93* -7.44 -4.93* -7.44 -4.22* -6.73 -4.21* -6.72 600 -4.90* -7.54 -4.91* -7.55 -4.20* -6.84 -4.20* -6.84 500 -4.85* -7.66 -4.65* -7.66 -4.22* -7.03 -4.22* -7.03	TEAFT(W)	GPAL	DIFF	GPAC	UIFF	GPAL			-
900 8.85 -1.42 8.85 -1.42 8.96 -1.31 8.96 -1.31 800 8.88 1.05 8.88 1.05 8.96 1.13 6.96 1.13 700 8.91 1.61 8.91 1.61 8.96 1.66 8.95 1.65 600 8.93 1.68 8.94 1.69 8.98 1.73 8.97 1.72 500 8.95 2.32 6.95 2.32 8.99 2.36 8.98 2.35 400 8.98 3.19 8.98 3.19 9.00 3.21 9.01 3.22 300 9.11 6.28 9.11 6.28 9.12 6.30 9.12 6.29 200 9.61* 10.50 9.61* 10.50 9.62* 10.51 9.62* 10.51 100 8.09* 10.15 8.08* 10.14 8.09* 10.15 8.09* 10.15 32 4.68 2.69 4.07 2.69 4.08 2.69 4.09 2.70 8 3.09 2.09 3.09 2.09 3.09 2.09 3.09 2.09  V COMPGNENT (M/SEL)  LEVEL(M) GPAC DIFF GPAC DIFF GPAC DIFF GPAC DIFF GEO -6.92 1.37 -6.93 1.36 -6.93 1.36 -6.92 1.37 1000 -5.04* -7.80 -5.40* -7.96 -4.66* -7.22 -4.22* -6.78 900 -5.02* -8.35 -5.02* -8.35 -4.21* -7.54 -4.21* -7.54 800 -5.01* -7.55 -5.00* -7.54 -4.20* -6.74 -4.21* -6.72 600 -4.93* -7.44 -4.93* -7.44 -4.22* -6.73 -4.21* -6.72 600 -4.90* -7.54 -4.91* -7.55 -4.20* -6.84 -4.20* -6.84 500 -4.85* -7.66 -4.65* -7.66 -4.22* -7.03 -4.22* -7.03	GE O	-0.30	-0.30	-0.30	-0.30	-0.30			
800 8.88 1.05 8.88 1.05 8.90 1.13 8.96 1.13 700 8.91 1.61 8.91 1.61 8.96 1.66 8.95 1.65 600 8.93 1.68 8.94 1.69 8.98 1.73 8.97 1.72 500 8.95 2.32 8.95 2.32 8.99 2.36 8.98 2.35 400 8.98 3.19 8.98 3.19 9.00 3.21 9.01 3.22 300 9.11 6.28 9.11 6.28 9.12 6.30 9.12 6.29 200 9.61* 10.50 9.61* 10.50 9.62* 10.51 9.62* 10.51 100 8.09* 10.15 8.08* 10.14 8.09* 10.15 8.09* 10.15 32 4.68 2.69 4.07 2.69 4.08 2.69 4.09 2.70 8 3.09 2.09 3.09 2.09 3.09 2.09 3.09 2.09  V COMPUNENT (M/SEL)  LEVEL(M) GPAC DIFF GPAC DIFF GPAC DIFF GPAC DIFF GEO -6.92 1.37 -6.93 1.36 -6.93 1.36 -6.92 1.37 1000 -5.04* -7.60 -5.40* -7.96 -4.66* -7.22 -4.22* -6.78 900 -5.02* -8.35 -5.02* -8.35 -4.21* -7.54 -4.21* -7.54 800 -5.01* -7.55 -5.00* -7.54 -4.20* -6.74 -4.21* -6.72 600 -4.93* -7.44 -4.93* -7.44 -4.22* -6.73 -4.21* -6.72 600 -4.90* -7.54 -4.91* -7.55 -4.20* -6.84 -4.22* -6.84 500 -4.85* -7.66 -4.85* -7.66 -4.22* -7.03 -4.22* -7.03	1000	8.82	0.46		-1.03	-			-
700 8.91 1.61 8.91 1.61 8.96 1.66 8.95 1.65 600 8.93 1.68 8.94 1.69 8.98 1.73 8.97 1.72 500 8.95 2.32 6.95 2.32 8.99 2.36 8.98 2.35 400 8.98 3.19 8.98 3.19 9.00 3.21 9.01 3.22 300 9.11 6.28 9.11 6.28 9.12 6.30 9.12 6.29 200 9.61* 10.50 9.61* 10.50 9.62* 10.51 9.62* 10.51 100 8.09* 10.15 8.08* 10.14 8.09* 10.15 8.09* 10.15 32 4.08 2.69 4.07 2.69 4.08 2.69 4.09 2.70 8 3.09 2.09 3.09 2.09 3.09 2.09 3.09 2.09  V COMPUNENT (M/SEL)  LEVEL(M) GPAC DIFF GPAC DIFF GPAC DIFF GPAC DIFF GEU -6.92 1.37 -6.93 1.36 -6.93 1.36 -6.92 1.37 1000 -5.04* -7.80 -5.40* -7.96 -4.66* -7.22 -4.22* -6.78 900 -5.02* -8.35 -5.02* -8.35 -4.21* -7.54 -4.21* -7.54 800 -5.01* -7.55 -5.00* -7.54 -4.20* -6.74 -4.21* -6.72 600 -4.93* -7.44 -4.93* -7.44 -4.22* -6.73 -4.21* -6.72 600 -4.90* -7.54 -4.91* -7.55 -4.20* -6.84 -4.20* -6.84 500 -4.85* -7.66 -4.85* -7.66 -4.22* -7.03 -4.22* -7.03	900	8.85	-1.42	8.85	-1.42	8.40			
600 8.93 1.68 8.94 1.69 8.98 1.73 8.97 1.72 500 8.95 2.32 8.95 2.32 8.99 2.36 8.98 2.35 400 8.98 3.19 8.98 3.19 9.00 3.21 9.01 3.22 300 9.11 6.28 9.11 6.28 9.12 6.30 9.12 6.29 200 9.61* 10.50 9.61* 10.50 9.62* 10.51 9.62* 10.51 100 8.09* 10.15 8.08* 10.14 8.09* 10.15 8.09* 10.15 32 4.08 2.69 4.07 2.69 4.08 2.69 4.09 2.70 8 3.09 2.09 3.09 2.09 3.09 2.09 3.09 2.09  V COMPUNENT (M/SEL)  LEVEL(M) GPAC DIFF GPAC DIFF GPAC DIFF GPAC DIFF GEO -6.92 1.37 -6.93 1.36 -6.93 1.36 -6.92 1.37 1000 -5.04* -7.80 -5.40* -7.96 -4.66* -7.22 -4.22* -6.78 900 -5.02* -8.35 -5.02* -8.35 -4.21* -7.54 -4.21* -7.54 800 -5.01* -7.55 -5.00* -7.54 -4.20* -6.74 -4.21* -6.72 700 -4.93* -7.44 -4.93* -7.44 -4.22* -6.73 -4.21* -6.72 600 -4.90* -7.54 -4.91* -7.55 -4.20* -6.84 -4.20* -6.84 500 -4.85* -7.66 -4.85* -7.66 -4.22* -7.03 -4.22* -7.03	800	88.8	1.05	8.88	1.05	8.50	1.13		
500 8.95 2.32 8.95 2.32 8.99 2.36 8.98 2.35 400 8.98 3.19 8.98 3.19 9.00 3.21 9.01 3.22 300 9.11 6.28 9.11 6.28 9.12 6.30 9.12 6.29 200 9.61* 10.50 9.61* 10.50 9.62* 10.51 9.62* 10.51 100 8.09* 10.15 8.08* 10.14 8.09* 10.15 8.09* 10.15 32 4.08 2.69 4.07 2.69 4.08 2.69 4.09 2.70 8 3.09 2.09 3.09 2.09 3.09 2.09 3.09 2.09  V COMPUNENT (M/SEL)  LEVEL(M) GPAC DIFF GPAC DIFF GPAC DIFF GPAC DIFF GEO -6.92 1.37 -6.93 1.36 -6.93 1.36 -6.92 1.37 1000 -5.04* -7.00 -5.40* -7.96 -4.66* -7.22 -4.22* -6.78 900 -5.02* -8.35 -5.02* -8.35 -4.21* -7.54 -4.21* -7.54 800 -5.01* -7.55 -5.00* -7.54 -4.20* -6.74 -4.21* -6.72 700 -4.93* -7.44 -4.93* -7.44 -4.22* -6.73 -4.21* -6.72 600 -4.90* -7.54 -4.91* -7.55 -4.20* -6.84 -4.20* -6.84 500 -4.85* -7.66 -4.85* -7.66 -4.22* -7.03 -4.22* -7.03	700	8.91	1.61	8.91	1.61	8.96			
400 8.98 3.19 8.98 3.19 9.00 3.21 9.01 3.22 300 9.11 6.28 9.11 6.28 9.12 6.30 9.12 6.29 200 9.61* 10.50 5.61* 10.50 9.62* 10.51 9.62* 10.51 100 8.09* 10.15 8.08* 10.14 8.09* 10.15 8.09* 10.15 32 4.08 2.69 4.07 2.69 4.08 2.69 4.09 2.70 8 3.09 2.09 3.09 2.09 3.09 2.09 3.09 2.09  V COMPUNENT (M/SEL)  LEVEL(M) GPAC DIFF GPAC DIFF GPAC DIFF GPAC DIFF GEO -6.92 1.37 -6.93 1.36 -6.93 1.36 -6.92 1.37 1000 -5.04* -7.80 -5.40* -7.96 -4.66* -7.22 -4.22* -6.78 900 -5.02* -8.35 -5.02* -8.35 -4.21* -7.54 -4.21* -7.54 800 -5.01* -7.55 -5.00* -7.54 -4.20* -6.74 -4.21* -6.72 700 -4.93* -7.44 -4.93* -7.44 -4.22* -6.73 -4.21* -6.72 600 -4.90* -7.54 -4.91* -7.55 -4.20* -6.84 -4.20* -6.84 500 -4.85* -7.66 -4.65* -7.66 -4.22* -7.03 -4.22* -7.03	600	8.93	1.68	8.94	1.69	8.98	1.73	8.97	
300 9.11 6.28 9.11 6.28 9.12 6.3C 9.12 6.29 200 9.61* 10.50 9.61* 10.50 9.62* 10.51 9.62* 10.51 100 8.09* 10.15 8.08* 10.14 8.09* 10.15 8.09* 10.15 32 4.08 2.69 4.07 2.69 4.08 2.69 4.09 2.70 8 3.09 2.09 3.09 2.09 3.09 2.09 3.09 2.09  V COMPUNENT (M/SEL)  LEVEL(M) GPAC DIFF GPAC DIFF GPAC DIFF GPAC DIFF GEO -6.92 1.37 -6.93 1.36 -6.93 1.36 -6.92 1.37 1000 -5.04* -7.00 -5.40* -7.96 -4.66* -7.22 -4.22* -6.78 900 -5.02* -8.35 -5.02* -8.35 -4.21* -7.54 -4.21* -7.54 800 -5.01* -7.55 -5.00* -7.54 -4.20* -6.74 -4.21* -6.72 700 -4.93* -7.44 -4.93* -7.44 -4.22* -6.73 -4.21* -6.72 600 -4.90* -7.54 -4.91* -7.55 -4.20* -6.84 500 -4.85* -7.66 -4.65* -7.66 -4.22* -7.03 -4.22* -7.03	500	8.95	2.32			8.59	2.36	8.98	2.35
200 9.61* 10.50 9.61* 10.50 9.62* 10.51 9.62* 10.51 100 8.09* 10.15 8.08* 10.14 8.09* 10.15 8.09* 10.15 32 4.08 2.69 4.07 2.69 4.08 2.69 4.09 2.70 8 3.09 2.09 3.09 2.09 3.09 2.09 3.09 2.09  V COMPUNENT (M/SEL)  LEVEL(M) GPAC DIFF GPAC DIFF GPAC DIFF GPAC DIFF GEO -6.92 1.37 -6.93 1.36 -6.93 1.36 -6.92 1.37 1000 -5.04* -7.80 -5.40* -7.96 -4.66* -7.22 -4.22* -6.78 900 -5.02* -8.35 -5.02* -8.35 -4.21* -7.54 -4.21* -7.54 800 -5.01* -7.55 -5.00* -7.54 -4.20* -6.74 -4.21* -6.72 700 -4.93* -7.44 -4.93* -7.44 -4.22* -6.73 -4.21* -6.72 600 -4.90* -7.54 -4.91* -7.55 -4.20* -6.84 -4.22* -7.03	400	8.98	3.19	8.98	3.19	9.00	3.21		
100 8.09* 10.15 8.08* 10.14 8.09* 10.15 8.09* 10.15 32 4.08 2.69 4.07 2.69 4.08 2.69 4.09 2.70 8 3.09 2.09 3.09 2.09 3.09 2.09 3.09 2.09  V COMPUNENT (M/SEL)  LEVEL(M) GPAC DIFF GPAC DIFF GPAC DIFF GPAC DIFF GEO -6.92 1.37 -6.93 1.36 -6.93 1.36 -6.92 1.37 1000 -5.04* -7.60 -5.40* -7.96 -4.66* -7.22 -4.22* -6.78 900 -5.02* -8.35 -5.02* -8.35 -4.21* -7.54 -4.21* -7.54 800 -5.01* -7.55 -5.00* -7.54 -4.20* -6.74 -4.21* -6.72 700 -4.93* -7.44 -4.93* -7.44 -4.22* -6.73 -4.21* -6.72 600 -4.90* -7.54 -4.91* -7.55 -4.20* -6.84 -4.20* -6.84 500 -4.85* -7.66 -4.65* -7.66 -4.22* -7.03 -4.22* -7.03	300	9.11	6.28	9.11	6.28				
32 4.08 2.69 4.07 2.69 4.08 2.69 4.09 2.70 8 3.09 2.09 3.09 2.09 3.09 2.09 3.09 2.09 3.09 2.09 3.09 2.09 3.09 2.09 V COMPUNENT (M/SEL)  LEVEL(M) GPAC DIFF GPAC DIFF GPAC DIFF GPAC DIFF GEO -6.92 1.37 -6.93 1.36 -6.93 1.36 -6.92 1.37 1000 -5.04* -7.60 -5.40* -7.96 -4.66* -7.22 -4.22* -6.78 900 -5.02* -8.35 -5.02* -8.35 -4.21* -7.54 -4.21* -7.54 800 -5.01* -7.55 -5.00* -7.54 -4.20* -6.74 -4.21* -6.72 700 -4.93* -7.44 -4.93* -7.44 -4.22* -6.73 -4.21* -6.72 600 -4.90* -7.54 -4.91* -7.55 -4.20* -6.84 -4.20* -6.84 500 -4.85* -7.66 -4.65* -7.66 -4.22* -7.03 -4.22* -7.03	200	9.61*	10.50	5.61*	10.50	9.62*	10.51		
8 3.09 2.09 3.09 2.09 3.09 2.09 3.09 2.09  V COMPUNENT (M/SEL)  LEVEL(M) GPAC DIFF GPAC DIFF GPAC DIFF GEO -6.92 1.37 -6.93 1.36 -6.93 1.36 -6.92 1.37 1000 -5.04* -7.60 -5.40* -7.96 -4.66* -7.22 -4.22* -6.78 900 -5.02* -8.35 -5.02* -8.35 -4.21* -7.54 -4.21* -7.54 800 -5.01* -7.55 -5.00* -7.54 -4.20* -6.74 -4.21* -6.72 700 -4.93* -7.44 -4.93* -7.44 -4.22* -6.73 -4.21* -6.72 600 -4.90* -7.54 -4.91* -7.55 -4.20* -6.84 -4.20* -6.84 500 -4.85* -7.66 -4.65* -7.66 -4.62* -7.03 -4.22* -7.03	100	8.09*	10.15	#80.B	10.14	೮09*	10.15	8.09*	
V COMPGNENT (M/SEL)  LEVEL(M) GPAC DIFF GPAC DIFF GPAC DIFF GPAC DIFF GEO -6.92 1.37 -6.93 1.36 -6.93 1.36 -6.92 1.37 1000 -5.04* -7.60 -5.40* -7.96 -4.66* -7.22 -4.22* -6.78 900 -5.02* -8.35 -5.02* -8.35 -4.21* -7.54 -4.21* -7.54 800 -5.01* -7.55 -5.00* -7.54 -4.20* -6.74 -4.21* -6.75 700 -4.93* -7.44 -4.93* -7.44 -4.22* -6.73 -4.21* -6.72 600 -4.90* -7.54 -4.91* -7.55 -4.20* -6.84 -4.20* -6.84 500 -4.85* -7.66 -4.65* -7.66 -4.22* -7.03 -4.22* -7.03	32	4 . C8	2.69	4-07	2.69	4.08	2.69		
LEVEL(M) GPAC DIFF GPAC DIFF GPAC DIFF GPAC DIFF GEO -6.92 1.37 -6.93 1.36 -6.93 1.36 -6.92 1.37 1000 -5.04* -7.00 -5.40* -7.96 -4.66* -7.22 -4.22* -6.78 900 -5.02* -8.35 -5.02* -8.35 -4.21* -7.54 -4.21* -7.54 800 -5.01* -7.55 -5.00* -7.54 -4.20* -6.74 -4.21* -6.75 700 -4.93* -7.44 -4.93* -7.44 -4.22* -6.73 -4.21* -6.72 600 -4.90* -7.54 -4.91* -7.55 -4.20* -6.84 -4.20* -6.84 500 -4.85* -7.66 -4.65* -7.66 -4.22* -7.03 -4.22* -7.03	ಕ	3.09	2.09	3.09	2.09	3.09	2.09	3.09	2.09
GEO -6.92 1.37 -6.93 1.36 -6.93 1.36 -6.92 1.37 1000 -5.04* -7.60 -5.40* -7.96 -4.66* -7.22 -4.22* -6.78 900 -5.02* -8.35 -5.02* -8.35 -4.21* -7.54 -4.21* -7.54 800 -5.01* -7.55 -5.00* -7.54 -4.20* -6.74 -4.21* -6.75 700 -4.93* -7.44 -4.93* -7.44 -4.22* -6.73 -4.21* -6.72 600 -4.90* -7.54 -4.91* -7.55 -4.20* -6.84 -4.22* -7.03 -4.22* -7.03			٧	COMPUN	ENI (M/	SEL)			
GEO -6.92 1.37 -6.93 1.36 -6.93 1.36 -6.92 1.37 1000 -5.04* -7.60 -5.40* -7.96 -4.66* -7.22 -4.22* -6.78 900 -5.02* -8.35 -5.02* -8.35 -4.21* -7.54 -4.21* -7.54 800 -5.01* -7.55 -5.00* -7.54 -4.20* -6.74 -4.21* -6.75 700 -4.93* -7.44 -4.93* -7.44 -4.22* -6.73 -4.21* -6.72 600 -4.90* -7.54 -4.91* -7.55 -4.20* -6.84 -4.22* -7.03 -4.22* -7.03	I EVEL ( M )	CDA	niee	CD AC	DIFE	GP AC	DIFF	GPAC	DIFF
1000		-		• • • • •					
900 -5.02* -8.35 -5.02* -8.35 -4.21* -7.54 -4.21* -7.54 800 -5.01* -7.55 -5.00* -7.54 -4.20* -6.74 -4.21* -6.75 700 -4.93* -7.44 -4.93* -7.44 -4.22* -6.73 -4.21* -6.72 600 -4.90* -7.54 -4.91* -7.55 -4.20* -6.84 -4.20* -6.84 500 -4.85* -7.66 -4.65* -7.66 -4.22* -7.03 -4.22* -7.03									
800 -5.01* -7.55 -5.00* -7.54 -4.20* -6.74 -4.21* -6.75 700 -4.93* -7.44 -4.93* -7.44 -4.22* -6.73 -4.21* -6.72 600 -4.90* -7.54 -4.91* -7.55 -4.20* -6.84 -4.20* -6.84 500 -4.85* -7.66 -4.65* -7.66 -4.22* -7.03 -4.22* -7.03									
700									
600 -4.90* -7.54 -4.91* -7.55 -4.20* -6.84 -4.20* -6.84 500 -4.85* -7.66 -4.85* -7.66 -4.22* -7.03 -4.22* -7.03									
500 -4.85* -7.66 -4.85* -7.66 -4.22* -7.03 -4.22* -7.03									
7.03						_			
								– –	
300 -4.19* -9.09 -4.19* -9.09 -3.76* -8.66 -3.77* -8.67			_						
200 -1.31* -6.38 -1.31* -6.38 -1.01* -6.08									
100 2.93 -0.63 2.94 -0.62 3.10 -0.46 3.10 -0.46		_							
32 3.94* 4.09 3.94* 4.09 3.95* 4.10 3.95* 4.10				2 - 0/*	4.00				-
8 3.98* 4.82 3.98* 4.82 3.58* 4.82 3.98* 4.82									

### AIR TEMPERATURE AND VAPUR PRESSURE

TAPE NU. INTERVAL	108.0 1HR		169.0 1Hk		110.0 1HK		111.0 1HR	
		AI	R TEMPE	KATURE	(DEG L)			
LEVEL(M)	GPAC	DIFF	<b>GPAC</b>	DIFF	GPAL	DIFF	GPAC	DIFF
1000	18.05	1.05	18.06	1.06	18.06	1.06	18.06	1.06
900	18.95	1.05	18.95	1.05	18.95	1.65	18.94	1.04
800	19.00	0.86	19.66	0.86	19.64	0.84	15.64	0.84
700	20.42	0.92	20.41	C. 91	20.38	0.88	20.38	64.0
600	21.09	0.99	21.09	6.99	21.05	0.95	21.05	0.95
500	21.41	0.51	21.41	0.51	21.33	0.43	21.32	0.42
400	21.87	0.07	21.88	0.00	21.76	-0.04	21.76	-0.04
300	21.91	-0.39	21.90	-0.40	21.74	-0.56	21.75	-0.55
200	21.09	-1.01	21.11	-0.99	20.90	-1.20	20.91	-1.19
100	21.93	-0.07	∠1.93	-0.07	21.83	-0.17	21.82	-0.18
32	24.18	-0.42	24.18	-0.42	24.13	-0.47	24.13	-0.47
8	23.42	-1.18	23.42	-1.18	23.41	-1.19	23.41	-1.19
2	19.14	-4.86	15.12	-4.05	19.13	-4.87	19.12	-4.88
0	14.81	XXXX	14.79	XXXX	14.80	XXXX	14.78	XXXX
LEVEL(M)	GPAC	Ülff	<b>EPA</b> C		GPAL	Ulff	GPAC	DIFF
1000	11.95	0.54	11.96	0.55	11.99	0.58	12.00	0.59
900	12-56	0.36	12.56	りょうい	12.01	0.41	12.61	0.41
80 <b>0</b>	12.92	-0.C4	12.93	-0.03	12.57	0-01	12.97	0.01
700	13.55	-0.20	13.55	-0.20	13.61	-0.14	13.61	-0.14
600	14.31	0.09	14.31	0.09	14.36	0.14	14.36	0.14
500	15.63	0.65	15.64	0.66	15.70	0.72	15-69	0.71
400	15.96	-0.13	15.96	-0.13	16.02	-0.07	16.03	-0.06
300	16.52	-0.32	16.53	-0.31	16.59	-0.25	16.59	-0.25
200	15.95	-0.57	15.95	-0.57	16.02	-0.50	16.02	-0.50
100	14.79	-2.49	14.80	-2.48	14.63	-2.45	14.83	-2.45
32	13.30	0.74	13.36	074	13.37	U. 75	13.37	0.75
8	13.49	0.70	13.49	C.70	13.49	0.70	13.49	0.70
2	14.90	14.90	14.90	14.90	14.90	14.90	14.90	14.90
0	16.33	XXXX	16.33	XXXX	10.32	XXXX	16.32	XXXX

TAPE NO. INTERVAL			109.0 1HR		110.0 1HR		111.0 1HR			
		SUI	L TEMPE	RATURE	(DEG C)					
LEVEL (M)	GPAL	ULFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF		
-0.0	14.94	1.34	14.94	1.34	14.94	1.34	14.94	1.34		
-0.125	23.78	-0.33	23.78	-0.33	23.70	0.33	23.79	-0.32		
-0.250	24.94	0.11	24.94	0.11	24.95	9.12	24.94	0.11		
-0.500	22.80	0.03	22.87	0.04	22.86	0.03	22.85	0-02		
-1.000	19.12	0.12	19.12	0.12	19.12	0.12	19.12	0.12		
-2.000	18.91	0.13	18.91	0.13	18.51	ٕ13	18.91	0.13		
WIND SPEED (M/SEC)										
LEVEL (M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF		
8	5.05	3.75	5.05	3.75	5,05	3.75	5.05	3.75		
2	2.53	1.03		1.63	2.54		2.54	1.64		
SURFACE ENERGY TERMS (LY/SEC) X1000										
PARAMETE	É GPAL	LIFE	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF		
S(U)	0.31	0.11	0.31	0.11	0.31	0.11	0.31	0.11		
R(N)	-0.13	XXXX	-C.13	XXXX	-0.13	XXXX	-0.13	XXXX		
Q(C.G)	-0.28	XXXX	-C.28	XXXX	-0.28	XXXX	-0.28	XXXX		
Q(E,O)	0.19	XXXX	0.19	XXXX	0.19	XXXX	0.19	XXXX		
0(5.0)	-0.03	XXXX	-C.03	XXXX	-0.04	XXXX	-0.ŭ4	XXXX		
	SUR	FACE SH	EAR STR	.ESS (D)	/NES/LM	Sw) X10				
PARAMETE	R GPAC	ULFF	GPAC	OIFF	GPAL	DIFF	GPAL	DIFF		
TAU	0.46	XXXX	U-48	XXXX	0.48	XXXX	0.48	XXXX		
	INTEGR	ATEL EV	APOTRAN	SPIRAT	ICN (GM/	CM Sw)x	100			
PARAMETE	F GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF		
E	0.16	XXXX	C-10	XXXX	0.20	XXXX	0.20	XXXX		

### VELOCITY COMPONENTS

KILM SC/	SEC) 4	.79	4	74	<b>4</b> 84		494	
TAPE NU.	112		113	.0	114	.0	115	5.0
INTERVAL	11		1HR		1HR		1HR	
		U	COMPONE	NT (M/	SEC)			
LEVEL(M)	GPAC.	DIFF	GPAL	DIFF	GPAL	DIFF	GPAC	DIFF
GEO	<b>-0.3</b> 0	-0.30	-C.30	-0.30	-0.30	-0.30	-0.30	-0.30
1000	8-97	0.61	7.46	-0.90	7.33	-1.03	8-82	0.46
900	8.96	-1.31	8.56	-1.31	8.85	-1.42	8.05	-1.42
800	8.96	1.13	٤.56	1.13	8.73	0.90	8.72	0.89
700	8.95	1.65	8.55	1.65	ย• 71	1.41	8.71	1.41
600	£ • 98	1.73	€.98	1.73	8.74	1.49	8.74	1.49
500	8.95	2.35	8.98	2.35	8.79	2.16	8.79	2.16
400	9.00	3.21	9.00	3.21	8.86	3.07	8.87	3.08
30G	9.12	6.3C	9.12	6.30	9.65	6.22	9.05	6.22
200	9.62*	10.51	9.62*	10.51	9.62*	10.51	9.62*	10.51
100	8.10*	10.16	6.09*	10.15	8.09*	10.15	8.09*	10.15
32	4.08	2.69	4.08	2.69	4.10	2.71	4-10	2.71
8	3.09	2.09	3.09	2.09	3.10	2.10	3.09	2.09
		V	COMPON	ENT (M)	SEC)			
		•	COMON		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
TEAFT (W)	GPAC	DIFF	GPAC	DIFF		DIFF		DIFF
GE C	-6.92	1.37	-6.92	1.37	-6.53		-6.92	
1000	-4.22*	-0.78	-4.65*	-7.22	-5.4C*		-5.05*	
900	-4.20*		-4.21*	-7-54	-5.62*		-5.02*	
800	-4.21*		-4.21*	-6.75	-4.57*		-4.98*	
700	-4.21*	-6.72	-4.21*	-6.72	-4.50*		-4.90*	
600	-4.20*		-4.21*	-6.85	-4.67*	-7.51	-4.87*	
500	-4.22*		-4.22*	-7.03	-4.81*			-7.63
400	-4.19*		-4.18*	-7.52	-4.70*	-8.04		-8.04
300	-3.76*		-3.77*		-4.18*			-9.08
200	-1.Cl*		-1.01*		-1.31*	-6.38		-6.38
100		-0.45	3.10		2.93			-0.63
32		4.10	3.95*		3.53*			4.08
8		4.82		4.82	3.98*	4.82	3.98*	4.82

#### CASE LPG 1 GPAC UUTPUT DATA

### AIR TEMPERATURE AND VAPUR PRESSURE

IAPE NO. INTERVAL	112.0 1FR		113.0 1HR		114-0 1HR		115.0 1HR	
		AI	R TEMPE	RATURE	(DEG C)			
LEVEL (M)	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF
1000	18.06	1.06	18.07	1.07	18.06	1.06	18.06	1.06
900	18.94	1.04	18.55	1.05	18.96	1.00	18.95	1.05
800	19.64	0.84	15.64	0.84	19.66	0.86	19.66	0.86
700	20.38	0.88	2C.38	G-88	20.42	0-92	20.41	0.91
600	21.05	0.95	21.05	0.95	21.09	0.99	21.09	0.99
500	21.33	0.43	21.33	0.43	21.40	0.50	21.40	0.50
400	21.75	-0.05	21.75	-0.05	21.87	0.07	21.87	0.07
300	21.74	-0.56	21.74	-0.56	21.91	-0.39	21.91	-0.39
200	20.91	-1.19	20.91	-1.19	21.09	-1.01	21.10	-1.00
100	21.82	-0.18	21.82	-0.18	21.93	-0.07	21.93	-0:07
32	24.17	-0.43	24.17	-0.43	24.21	-0.39	24.21	-0.39
8	23.76	-0.84	23.76	-0.84	23.78	-0.82	23.78	-0.82
Ž	20.96	-3.04	20.96	-3.04	20.93	-3.02	20.97	-3.03
0	18.12	XXXX	18.12	XXXX	18.13	XXXX	18.12	XXXX
			VAPOR P	RESSURE	[MB]			
LEVEL(M)	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	12.00	0.59	11.99	0.58	11.96	0.55	11.95	0.54
900	12.61	0.41	12-61	0.41	12.59	0.39	12.56	0.36
800	12.98	0.02	12.98	0.02	12.93	-0.03	12.92	-0.04
700	13.61	-0.14	13.61	-0.14	13.56	-0.19	13.55	-0.20
600	14.36	0.14	14.37	0.15	14.31	0.09	14.31	0.09
500	15.70	0.72	15.69	0.71	15.64	0.66	15.65	0.67
400	16.02	-0.07	16.02	-0.07	15.97	-0-12	15.97	-0-12
300	16.59	-0.25	16.59	-0.25	16.52	-0.32	16.52	-0.32
200	16.02	-0.50	16-02	-0.50	15.95	-0.57	15.96	-0.56
100	14.83	-2.45	14.83	-2.45	14-61	-2.47	14.81	-2.47
32	13-42	0.80	13.42	0.80	13.41	0.79	13.41	0.79
8	13.91	1.12	13.92	1.13	13.51	1.12	13.91	1.12
2	16.91	16.91	16.92	16.92	16.92	16.92	16.91	16.91
0	19.96	XXXX	19.97	XXXX	19.97	XXXX	19.96	XXXX

TAPE NU. INTERVAL	11.	2.0 HR	113.0 1HR		114.0 1HR		115.0 1HR				
		201	L TEMPE	RATURE	(DEG C)						
LEVEL(M)	GPAC	DIFF	GP AC	DIFF	<b>GPAC</b>	DIFF	GPAC	DIFF			
-0.0	20.76	7.16	20.77	7.17	20.76	7.16	20.75	7.15			
-0.125	24.31	0.20	24.30	0.19	24.29	0.18	24.30	0.19			
-0.250	24.56	0.13	24.96	0.13	24-96	0.13	24.96	0.13			
-0.500	22.86	0.03	22.85								
-1.000	19.13	0.13	19-14	0.14	19.13	0.13	19.13	0.13			
-2.000	24.53	5.75	24.54	5.76	24.54	5.76	24.54	5.76			
WIND SPEED (M/SEC)											
LÉVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
8	J. 04	3.74	5.04	3.74	5.05	3.75	5.05	3.75			
2	2.54	1-64	2.54	1-64	2.54	1.64	2.54	1.64			
SURFACE ENERGY TERMS (LY/SEC) X1000											
PARAMETE	4 GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
S(D)	0.31	0.11	C.31	0.11	0.31	0.11	0.31	0.11			
R(N)	-û.53	XXXX	-0.53	XXXX	-0.53	XXXX	-0.52	XXXX			
0(C+0)	-0.18	XXXX	-C.18	XXXX	-0.15	XXXX	-0.18	XXXX			
U1E,0)	0.41	XXXX	C. 40	XXXX	0.40	XXXX	0.40	XXXX			
0(5.0)	-0.75	XXXX	-C.75	XXXX	-0.75	XXXX	-0.75	XXXX			
	SuRi	FALE SH	EAR STR	ESS (0)	(NES/CM S	54) X10					
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF			
TAU	0.46	XXXX	C. 46	XXXX	0.46	XXXX	0.48	XXXX			
	INTEGRA	ATED EV	APOTRAN	SP IRATI	CON CGMZC	M SQ)X	100				
PARAMETE	R GPAC	DIFF	GPAL	DIFF	GP AL	DIFF	GPAC	DIFF			
É	0.20	XXXX	0.20	XXXX	0.40	XXXX	0.30	XXXX			

### CASE DPG 2 TAPE LCG

I Al' L	FUST	5 M	KMø	\$1. L	AUV	uEC	REMARKS
Nu.	INT		LO				
. 25. 1	,	٨	٧	A	N	ù	NUNE
133.	12	A	٧	Â	N.	ì	NUNE
134.	12	Ä	٧	Ā	F	Ī	NCNE
135.	12	A	٧	Ā	F	ũ	NUNE
136.	12	분	٧	Â	Ė	ن	NONE
137.	12	B	V	Ā	F	ĩ	NONE
138.	12 12	В	v	Ā	N	ī	NONE
139. 140.	12	8	V	Ā	N	ū	NONE
	12	À	v	F	ÍN	Ū	NUNE
141. 142.	12	Ā	v	F	N	I	NUNE
142.	12	Ā	v	F	F	ú	NUNE
143.	12	8	v	ŗ. F	F	ũ	NUNÉ
144.	12	b	v	F	N	1	NUNE
146.	12	В	v	F	N	Ü	NUNE
156.	12	A	v	Α	N	Ü	NONE
157.		Ā	v	A	N	Ü	NUNE
158.	6	Ā	v	Ā	N	1	NUNE
159.	6	Ā	v	A	F	Ü	NUNE
160.	6	Ā	ž	F	N	U	NONE
161.	6	Ā	v	F	N	I	NONE
162.	6	Ā	Ÿ	F	F	ن	NUNE
163.	6	В	v	F	F	Ĺ	NOVE
164.	6	В	v	F	N	1	NUNE
165.	6	ש	ý	F	٨	Ü	NONE
100.	6	В	Ě	A	N	C	NONE
167.	6	В	F	A	F	1	NGNE
168.	6	В	F	Α	F	u	NONE
169.	6	Ā	F	A	F	ن	NONE
170.	6	A	F	Α	N	i	NUNE
171.	6	A	F	A	Ν	Ü	NUNE
172.	6	A	F	F	F	C	NONE
173.	6	A	F	F	۶	1	NONE
174.	٥	A	£	F	N	Ł	NUNE
176.	2	A	٧	Α	IN.	Ĺ	NÜNÉ
177.	2	A	٧	A	N	ì	NUNE
178.	2	A		A	ŕ	نا	NONE
179.	2	A		F	N	Ú	NONE
180.	2	A		F	N	1	NONE
181.	2	A		F	F	ú	NONE
182.	2	b		F	F	Ü	NUNE

### CASE DPG 2 TAPE LOG

1 APE NU.	flst Int	5 M	KM8 Ub	SUG	ACV	uel	REMARKS
_						,	NGNE
los.	2	ь	٧	+	N	l .	NUNE
184.	2	<b>b</b>	٧	F	N	U	NONE
185.	2	ť	٧	Δ	N	į,	NUNE
180.	2	ь	F	A	N	U	NONE
107.	2	b	F	Δ	F	I	
188.	2	В	F	A	F	Ü	NUNE
189.	2	Α	F	A	F	Ü	NUNE
140.	2	A	F	A	N	1	NONE
191.	2	A	F	Δ	Ν	υ	NUNE
192.	2	A	F	F	F	ú	NONE
194.	2	Α	F	F	N	u	NUNE
196.	1	A	٧	Α	V	Ų	NUNE
197.	1	Α	٧	A	N	1	NUNE
198.	1	A	V	Δ	F	L	NUNE
199.	1	Α	V	F	N	Ü	NUNE
200.	1	Δ	٧	F	Ν	1	NÚNÉ
201.	1	Α	٧	F	F	I	NUNE
202.	1	A	٧	F	F	L	NUNE
203.	1	ರ	٧	F	F	Ն	NUNE
204.	1	R	٧	F	N	1	NONE
205.	1	ь	٧	F	IN.	U	NUNE
200.	1	ß	F	Α	N	U	NUNE
207.	1	D	F	A	Ł	1	NGNE
208.	ī	D	F	Δ	F	Ĺ	NÜNE

# DPG 02 INITIAL CONDITIONS - 0500C 13 AUGUST 1969 (page 1 of 2 pages)

#### SOIL PARAMETERS

$$T_0' = 4.06$$
 °C  $T_{-1}' = 20.83$  °C  $\sqrt{\mu\lambda} = 0.036 \text{ cal/cm}^4 \text{deg}^2 \text{sec}$ 

$$T_{-1/8}^{1} = 24.44 \text{ °C}$$
  $T_{-2}^{1} = 20.67 \text{ °C}$   $Z_{0} = 2.0 \text{ cm}$ 

$$T'_{-1/4} = 25.78 \, ^{\circ}C$$
  $\lambda = 0.59 \, \text{cal/cm}^3 \text{deg}$   $S_{0} = .0004 \, \text{cal/cm}^2 \text{sec mb}$ 

$$T'_{-1/2} = 24.67 \, ^{\circ}C \, \mu/\lambda = .0037 \, \text{cm}^2/\text{sec}$$
 G = 3500 cm<sup>2</sup>sec deg/cal

#### RADIATION PARAMETERS

Local 
$$e_8' = 7.69 \text{ mb}$$
  $F_c = 1.00$ 

$$\epsilon = 0.950$$
 j = 0.26

6 = 14.972 deg 
$$\phi$$
 = 40.2 deg m = 0.620

$$R \times 10^5 = 1.16$$
 °C/sec  $N = 0.20$   $n = 0.0415$  mb<sup>-1/2</sup>

Cloud Class = 1 
$$\psi$$
 = 0.975 H = -90.0 deg

#### HORIZONTAL GRADIENTS

$$\frac{\partial e}{\partial x_{200}} = 0.85 \text{ mb/100 km} \qquad \frac{\partial e}{\partial x_{600}} = 0.61 \text{ mb/100 km} \qquad \frac{\partial e}{\partial x_{1000}} = 0.37 \text{ mb/100 km}$$

$$\frac{\partial e}{\partial y_{200}} = -1.05 \text{ mb/100 km} \qquad \frac{\partial e}{\partial y_{600}} = -0.99 \text{ mb/100 km} \qquad \frac{\partial e}{\partial y_{1000}} = -0.94 \text{ mb/100 km}$$

$$\frac{\partial T}{\partial x_{200}} = -0.45 \text{ °C/100 km} \qquad \frac{\partial T}{\partial x_{600}} = -0.42 \text{ °C/100 km} \qquad \frac{\partial T}{\partial x_{1000}} = -0.38 \text{ °C/100 km}$$

$$\frac{\partial T}{\partial y_{200}} = -0.79 \text{ °C/100 km} \qquad \frac{\partial T}{\partial y_{600}} = -0.75 \text{ °C/100 km} \qquad \frac{\partial T}{\partial y_{1000}} = -0.72 \text{ °C/100 km}$$

DPG 02 INITIAL CONDITIONS - 0500C 13 AUGUST 1969 (page 2 of 2 pages)

WIND COMPONENTS (m/sec)	TEMPERATURE (°C)	VAPOR PRESSURE (mb)
0	38 T <sub>8</sub> = 14.50	e <sub>8</sub> = 7.69 e <sub>00</sub> = 7.26
$v_{32} = 3.10   v_{32} = 1.$	13 T <sub>32</sub> = 15.90	32
$v_{100} = -0.50$ $v_{100} = -2$	.84 T <sub>100</sub> = 16.15	e <sub>100</sub> = 9.08
$v_{200} = -2.83$ $v_{200} = -4$	.01 $T_{200} = 18.40$	e <sub>200</sub> = 9.44
	$_{.05}$ $_{300}$ = 18.40	e <sub>300</sub> = 9.00
	$1.88  T_{400} = 18.40$	$e_{400} = 8.64$
	0.88 T <sub>500</sub> = 18.40	e <sub>500</sub> = 8.20
	0.88 T <sub>600</sub> = 18.37	e <sub>600</sub> = 7.78
600	0.88 T <sub>700</sub> = 18.00	e <sub>700</sub> = 7.58
/00	0.88 T <sub>800</sub> = 17.27	e <sub>800</sub> = 7.20
<del>-</del>		e <sub>900</sub> = 6.84
	$0.88  T_{900} = 16.57$ $0.88  T_{1000} = 16.02$	$e_{1000} = 6.58$
•		
ADVECTION TERMS (sec 1)	5 1	10 - 10-5
$\alpha_{200}^{1} = 0.22 \times 10^{-5}$ $\alpha_{600}^{1} = 0$	1950 × 10	10 * 10
$\beta_{200}^{1}$ -0.21 x 10 <sup>-5</sup> $\beta_{600}^{1}$	$-0.62 \times 10^{-5}$ $\beta_{1000}^{1} - 1$	.03 x 10 <sup>-5</sup>
$a_{200}^{2} = -0.14 \times 10^{-5}$ $a_{600}^{2} = 0.00$	$-0.42 \times 10^{-5}$ $\alpha_{1000}^2 -0$	.71 x 10 <sup>-5</sup>
$\beta_{200}^{2} = 2.06 \times 10^{-5}$ $\beta_{600}^{2}$	1.05 × $10^{-5}$ $\beta_{1000}^2$ .	03 x 10 <sup>-5</sup>
CONTOUR GRADIENT TERMS		
0 hour 1 hour	2 hour 6 hour 12	2 hour
Azimuth 12.0 350.	350. 20. 40	(deg from North)
Magnitude 28.84 32.11	24.08 16.06 1	6.06 (ft/100 km)

#### CASE GPG 2 COMPARISON DATA FROM DUGWAY ( 1 HOUR )

GEO -10.04 -1.77 1000 -0.93 -1.83	SUKE
1000       -0.93       -1.83       16.70       4.65         900       -1.12       -1.73       17.50       5.16         800       -1.32       -1.58       17.90       5.68         700       -1.53       -1.38       18.40       6.43         600       -1.91       -1.72       18.70       7.06         500       -2.29       -2.07       19.00       7.58         400       -2.68       -2.41       19.40       8.14         300       -2.33       -2.03       19.20       8.19         200       -0.78       -0.68       18.90       7.58         100       -0.78       -0.68       18.00       6.52         32       3.23       -1.05       17.40       5.52         8       2.69       -0.28       17.10       5.84         2       1.90       0.10       18.60       XXXX         0       XXXX       XXXX       XXXX	
1000       -0.93       -1.83       16.70       4.65         900       -1.12       -1.73       17.50       5.16         800       -1.32       -1.58       17.90       5.68         700       -1.53       -1.38       18.40       6.43         600       -1.91       -1.72       18.70       7.06         500       -2.29       -2.07       19.00       7.58         400       -2.68       -2.41       19.40       8.14         300       -2.33       -2.03       19.20       8.19         200       -0.78       -0.68       18.90       7.58         100       -0.78       -0.68       18.00       6.52         32       3.23       -1.05       17.40       5.52         8       2.69       -0.28       17.10       5.84         2       1.90       0.10       18.60       XXXX         0       XXXX       XXXX       XXXX	
900 -1.12 -1.73 17.50 5.16 800 -1.32 -1.58 17.90 5.68 700 -1.53 -1.38 18.40 6.43 600 -1.91 -1.72 18.70 7.06 500 -2.29 -2.07 19.00 7.58 400 -2.68 -2.41 19.40 8.14 300 -2.33 -2.03 19.20 8.19 200 -0.78 -0.68 18.90 7.58 100 -0.78 -0.68 18.00 6.52 32 3.23 -1.05 17.40 5.52 8 2.69 -0.28 17.10 5.84 2 1.90 0.10 18.60 XXXX	
800       -1.32       -1.58       17.90       5.68         700       -1.53       -1.38       18.40       6.43         600       -1.91       -1.72       18.70       7.06         500       -2.29       -2.07       19.00       7.58         400       -2.68       -2.41       19.40       8.14         300       -2.33       -2.03       19.20       8.19         200       -0.78       -0.68       18.90       7.58         100       -0.78       -0.68       18.00       6.52         32       3.23       -1.05       17.40       5.52         8       2.69       -0.28       17.10       5.84         2       1.90       0.10       18.60       XXXX         0       XXXX       XXXX       XXXX	
700       -1.53       -1.38       18.40       6.43         600       -1.91       -1.72       18.70       7.06         500       -2.29       -2.07       19.00       7.58         400       -2.68       -2.41       19.40       8.14         300       -2.33       -2.03       19.20       8.19         200       -0.78       -0.68       18.90       7.58         100       -0.76       -0.68       18.00       6.52         32       3.23       -1.05       17.40       5.52         8       2.69       -0.28       17.10       5.84         2       1.90       0.10       18.60       XXXX         0       XXXX       XXXX       XXXX	
600 -1.91 -1.72 18.70 7.06 500 -2.29 -2.07 19.00 7.58 400 -2.68 -2.41 19.40 8.14 300 -2.33 -2.03 19.20 8.19 200 -0.78 -0.68 18.90 7.58 100 -0.78 -0.68 18.00 6.52 32 3.23 -1.05 17.40 5.52 8 2.69 -0.28 17.10 5.84 2 1.90 0.10 18.60 XXXX 0 XXXX XXXX XXXX	
500       -2.29       -2.07       19.00       7.58         400       -2.68       -2.41       19.40       8.14         300       -2.33       -2.03       19.20       8.19         200       -0.78       -0.68       18.90       7.58         100       -0.78       -0.68       18.00       6.52         32       3.23       -1.05       17.40       5.52         8       2.69       -0.28       17.10       5.84         2       1.90       0.10       18.60       XXXX         0       XXXX       XXXX       XXXX	
400       -2.68       -2.41       19.40       8.14         300       -2.33       -2.03       19.20       8.19         200       -0.78       -0.68       18.90       7.58         100       -0.78       -0.68       18.00       6.52         32       3.23       -1.05       17.40       5.52         8       2.69       -0.28       17.10       5.84         2       1.90       0.10       18.60       XXXX         0       XXXX       XXXX       XXXX	
300 -2.33 -2.03 19.20 8.19 200 -0.78 -0.68 18.90 7.58 100 -0.78 -0.68 18.00 6.52 32 3.23 -1.05 17.40 5.52 8 2.69 -0.28 17.10 5.84 2 1.90 0.10 18.60 XXXX 0 XXXX XXXX XXXX	
200       -0.78       -0.68       18.90       7.58         100       -0.78       -0.68       18.00       6.52         32       3.23       -1.05       17.40       5.52         8       2.69       -0.28       17.10       5.84         2       1.90       0.10       18.60       XXXX         0       XXXX       XXXX       XXXX	
100 -0.78 -0.68 18.00 6.52 32 3.23 -1.05 17.40 5.52 8 2.69 -0.28 17.10 5.84 2 1.90 0.10 18.60 XXXX 0 XXXX XXXX XXXX XXXX	
32 3.23 -1.05 17.40 5.52 8 2.69 -0.28 17.10 5.84 2 1.90 0.10 18.60 XXXX 0 XXXX XXXX XXXX XXXX	
8 2.69 -0.28 17.10 5.84 2 1.90 0.10 18.60 XXXX 0 XXXX XXXX XXXX XXXX	
2 1.90 U.10 18.60 XXXX O XXXX XXXX XXXX XXXX	
XXXX XXXX XXXX XXXX	
SOIL TEMPERATURE (DEG C) WIND SPEED (M/SCC)	
-0.0 6.79 b 2.70	
-0.125 23.50 \(\alpha\) 1.90	
-0.250 24.72	
-0.500 23.83 SURFACE SHEAR STRES	S
-1.000 20.00 (DYNES/CM SG.) X10	
-2.000 19.78 TAU≃ XXXX	
SURFACE ENERGY TERMS (LY/SEC) x1000	
S(D)= 6.60 $Y(E,0)=$ XXXX	
$R(N) = XXXX \qquad L(5,0) = XXXX$	
$C(C \cdot O) = XXXX$	

INTEGRATED EVAPCTRANSPIRATION (GM/CM Sw.) x100

### LASE CPG 2 COMPARISON DATA FROM DUGWAY ( 2 HOUR )

	WIND COMPONENTS		TEMPERATURE (DEG C)	VAPCK PRESSURE (MB)		
ĠEU	-7.53	-1.33				
1000	-1.49	-0.40	16.30	6.81		
900	-1.50	-0.35	16.90	7.06		
800	-1.95	-0.67	17.20	7.32		
700	-1,88	-0.84	17.80	7.58		
600	-2.11	-1.48	18.20	7.65		
500	-1.98	-2.37	18.80	8.14		
400	-1.58	24	19.00	8.43		
300	-2.03	-2.33	18,90	8.60		
200	-2.42	-0.88	18.60	ø•67		
100	-2.58	0.0	18.50	8.73		
32	2.70	-1.32	18.60	5.59		
ರ	2.90	-1.35	19.50	5.59		
2	2.38	-0.77	19.90	XXXX		
0	XXXX	XXXX	XXXX	XXXX		
SULL	TEMPERATUR	E (LEG C)	wINU	SPEED (M/SEC)		
-0.0		22.50	c	3.20		
-0.1	25	22.22	2	2.50		
-0.2	50	23.09				
-0.5	00	23.17	SURFAL	E SHEAK STRESS		
-1.0	υu	19.39	(DYNE	S/LM Su. 1 X10		
-2.0	00	19.22	1,4	il= xxxx		

#### SURFACE ENERGY TERMS TLY/SECTXTUCE

5(U)=	11,90	wiErO)=	XXXX
R(N)=	XXXX	<b>4</b> 15 € 01 =	XXXX
G(CoU)=	<b>X</b>		

INTEGRATED EVAPOTRANSPIRATION (GM/CM Su.) X100

### CASE DPG 2 LUMPARISUN DATA FRUM DUGWAY ( 6 HOUR )

			TEMPERATURE (DEG C)	VAPOR PRESSURE (MB)
GEO	-4.79	1 7/		
	-0.24	1.74 1.29	17.50	12.37
		1.09		13.13
	-1.09		18.40	<del>-</del> -
800	-1.25	0.91	19.20	13.94
	-1.18	0.99	20.00	14.79
	-0.99	1.18	21.00	15.48
	0.99	1.18	22.10	13.31
	1.93	-0.70	23.20	11.48
-	1.21	-1.67	24.40	9.68
	1.46	-1-46	25.60	8.25
100	1.58	-1.32	26.70	7.06
32	1.71	-1.54	26.60	5.63
8	1.61	-1.50	27.20	5.38
2	1.20	-1.34	27.90	XXXX
0	XXXX	XXXX	XXXX	XXXX
SOIL TE	MPERATU	RE (DEG C)	WIND	SPEED (M/SEC)
-0.0		48.30	8	2.20
-0.125		20.33	2	1.80
-0.250	ı	∠0.83		
-0.500	ı	20.67	SURF A	CE SHEAR STRESS
-1.000		17.17	(DYN	ES/CM SQ.) X10
-2.000		17.00	1.	AU≃ X¥XX
		SURFACE ENERGY	Y TERMS (LY/S	EC) X1 000

SID1=	22.30	Q(E,0)=	XXXX
R(N)=	XXXX	u(S,0)=	XXXX
C(C.O)=	XXXX		

INTEGRATED EVAPOTRANSPIRATION (GM/CM SQ.) X100

#### CASE DPG 2 CUMPARISON DATA FROM DUGWAY (12 HOUR )

	wind components U (M/SEC) V		JEMPERATURE (DEG C)	VAPUR PRESSURE (MB)		
GEO	-3.91	3.28				
1000	0.22	-6.17	21.20	<b>5.48</b>		
900	0.22	-6.17	22.20	6 <b>.66</b>		
800	0.20	-5.06	23.50	7.06		
700	0.20	-5.66	24.40	7.32		
600	0.63	-5.11	25.40	7.58		
500	1-41	-3.87	26.40	7.91		
400	1.80	-3.12	27.50	8.14		
300	1.98	-2.37	28.60	8.60		
200	1.32	-1.58	29.20	8.73		
100	0.06	-0.79	30.10	8.91		
32	-1.63	-0.98	30.80	6.93		
ಕ	-1.36	-1.18	30.90	6.59		
2	-1.15	-0.96	30.90	XXXX		
O	XXXX	XXXX	XXXX	XXXX		
Suit I	EMPERATUR	E (DEG C)	WIND	SPEED (M/SEC)		
-0.0		36.10	8	1.80		
-0.12		24.78	2	1.50		
-0.250	)	20.94				
-0.500	)	19.83	SURFAC	E SHEAR STRESS		
-1.000	)	16.67	(DYNE	S/CM SL.) X10		
-2.000	)	16.5C	IA	U= XXXX		

### SURFACE ENERGY TERMS (LY/SEC) X1000

S101=	1.60	u(£,0)=	XXXX
R(N) =	XXXX	<b>₩</b> (5,0)=	XXXX
G(C.O)=	XXXX		

INTEGRATED EVAPOTRANSPIRATION (GM/CM 50.)X100

### VELOCITY COMPONENTS

KICH SC/ TAPE ND.		154 3.0	_	914 4.0	5) 13!	709 5-0	66 136	069
INTERVAL	121	1R	1.21		12		12	
		U	COMPONE	ENT (M/	SECI			
LEVEL(M)	GP 4C	166	CD 4.5	A 1 F F				
GED	-2-88	0.03	GP A C -3.87		GPAC			DIFF
1000	-3-14*				-3.87		-3.88	
900	-4.03#		-3.32*		-6.04*		-6.70	–
800	-4-41*		-3.98*		-6.56*		-6.68*	
7ú0	-4.63*		-4.34*		-6.57*	-	~6.60*	
600	-4.75*		~4.56 <b>*</b>		-6.50*		~6.50\$	
500	-4.82*		~4.68*		-6.41*		~6.39#	
400	-4-85*		-4.76*		-6.29*		-6.27#	
300	-4.83*		-4.80*		-6.16*		-6.12*	
200	-4.75*		-4.78*		-5.98*		-5.950	
100			-4.71*		-5.75*		-5.71+	
	-4.54*		-4.50*		-5.35*		-5.32+	
32	-4.06		-4.03		-4.70		-4.67	
8	-3.36	-2.00	-3.34	-1.98	-3.85	-2.49	-3.82	-2-46
		V	COMPUN	ENT 4M/	SEC)			
LEVEL(M)	GPAC	DIFF	GP & C	DIFF	GPAC.	DIFF	GPAC	DIFF
GEO	3.28	0.01		0.01	3.28	0.0	3.28	
1000	7.60*	13.77	6.21*	-		12-01		14.24
900	o = 55*	12.72	6.06*	12.23	6.22*	12.39		13.40
800	5.86*	11.52	5.52*	11.18	6.C4*	11.70		12.42
700	5.33*	10.99	5.06*	10.72	5.83*	11.49		12.08
600	4.92*	10.03	4.69	9,80		10.73		11.25
500	4.57*	8.44	4.36*	8.23	5. 40*	9.27	5.87*	
400	4.24*	7.36	4.05*	7.17	5.18*		5.60*	
J00	3.92*	6.29	3.74*	6.11	4.93*	7.30	5.32*	
200	3.56*	5.14	3.39*	4.97	4.62*		4.98	
100	3.12*	3.91	2.97*	3.76	4.18*		4.50*	5.29
32	2.57*	3.55	2.44	3.42	3.55*	4.53	3.82*	9.29 4.80
.52 8	2.04*	3.32	1.93*	3.11	2 • 85*	4.03	3.07	
•	2+07*	2056	10734	.7 . A L	ん・ロフテ	7.03	3.U1 F	4.25

### AIR TEMPERATURE AND VAFER PRESSURE

TAPE NU. Interval	133.0 12hR		134.0 12HR			155.0 12HK		136.0 12HR	
		Al	IR TEMPI	ERATURE	(UEG L	)			
LEVEL(M)	GPAC	DIFF	<b>LPAC</b>	DIFF	GPAC	OLFF	GPAL	DIFF	
1000	20.57	-0.83	20.36	-0.64	20.10	-1.10	20.11	-1.09	
900	20.81	-1.39	20.82	-1.38	20.51	-1.67	20.52	-1-68	
800	20.99	-2.51	21.01	-2.49	20.08	-2.82	20.69	-2.81	
700	21-14	-3.26	21.15	-3.25	20.81	-3.59	20.81	-3.59	
សមហ	21.21	-4.19	21-24	-4.16	20.80	-4.54	20.30	-4.54	
500	<b>∠1</b> •29	-5.11	21.33	-5.07	20.52	-5.48	20.93	-5.47	
400	21.33	-6.17	21.36	-6.14	20.94	-6.56	20.94	-6.56	
300	21.36	-7.24	21.41	-7.19	20.90	-7.64	20.95	-7.65	
200	21.34	-7.86	21.35	-7.81	20.91	-0.29	20.91	-8.29	
00	21.27	-8.83	21.33	-8.77	20.62	-9.28	20.81	-9.29	
32	21.02	-9.78	21.67	-9.73		-10.29		-10.32	
8	20.51	-10.39	20.51	-10.33	19.59	-10.91		-10.91	
2	19.21	-11.65	19.26	-11.64	18.76	-12.14	18.77	-12.13	
O	17.85	XXXX	17. მხ	XXXX	17.42	XXXX	17.43	XXXX	
			VAPOR S	PRESSURE	(MB)				
LEVEL(M)	GP A.,	وحدثا	GPAC	DIFF	GPAC	ULFF	GPAC	DIFF	
1000	12.06	5.58	12.01	5.53	10.64	4.16	10.66	4.18	
900	12.59	5.93	12.56	5.90	11.19	4.53	11.20	4.54	
Oüb	12.93	5.87	12.92	5.86	11.54	4,40	11.54	4.48	
700	13.20	5.54	13,26	5.54	11.65	4。53	11.50	4.54	
<b>6</b> 00	13.55	5.97	13-56	5.98	12.12	4 • 54	12.12	4.54	
500	13.86	5.90	13.07	5. 30	12-41	4.50	12.42	4.51	
400	14.15	6.01	14.17	6.03	12.66	4.52	12.66	4.52	
300	14.49	5. 69	14-49	5.89	12.95	4.55	12.96	4.36	
200	14.81	6.08	14.62	6.09	13.28	4.55	13.26	4.53	
100	15.22	6.31	15.25	6.34	13.69	4.18	13.69	4.78	
32	15.71	8.78	15.75	8.82	14.15	7.22	14.13	7.20	
â	16.20	9.61	16.26	9.67	14.61	8.02	14.57	7.98	
2	17.18	17.18	17.27	17.27	15.43	15.43	15.37	15.37	
Ö	18.21	XXXX	18.34	XXXX	16.34	XXXX	16.25	XXXX	

TAPE NU. Interval		33.0 2hR		34•0 2HR	135.0 12HR		136.0 12HR	
		SO.	IL TEMP	ERATURE	(DEG C	)		
-0.0 TEAET(W)		DIFF -15.99		DIFF -15.97	_	D1FF -16.20		DIFF -16.21
-0.125 -0.250	22.34			-2.43 2.72		-2.46 2.72		
-0.500 -1.000	24-21	4.38	24.20	4.37	24-21	4.38	24-21	
-2.00C	20.67	4.17	20.97	4.17	20.66	4 30	20.67	4-17
			wIND S	PEED (M.	/SEC1			
LEVEL(M)			3.87	2.07	4.80	D1FF 3.00 1.01	4.91	3.11
•					LLY/SEC		2000	
PARAMETE		-	GPAC		GPAC		GPAC	
SIDI	1.76				1.75		1.75	
R(N)	-0.88	XXXX		XXXX				
		XXXX		XXXX				XXXX
0(E+0)		XXXX	C.90 -1.21	XXXX	-1.28	X	1.51 -1.27	
	SU	RFACE S	HEAR STE	8E55 (D	YNES/CM	Sul X10		
PARAMETE			GPAC		GPAC			
IAU	2.68	XXXX	2.44	XXXX	5.92	XXXX	6.44	XXXX
	INTEG	RAIED E	VAPOTRA	ISP IRAT	ION (GM.	CM SQ)X	100	
PARAMETE	R GPAC	DIFF	GPAL	DIFF	GPAC	DIFF	GPAC	DIFF
E	34.20	XXXX	34-20	XXXX	35.20	XXXX	35.30	XXXX

### VELOCITY COMPONENTS

KILM SQ/SECT	6294	5934	3149	3384
TAPE NO.	137.0	136.0	139+0	140.0
INTERVAL	1268	12HR	12HR	1.2HR

### U COMPONENT (M/SEC)

LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF
GFO	-3.87	0.03	-3.88	0.03	-3.87	0.03	-3.87	0.03
1000	-6.91*		-6.17#	-6.39	-3.43*	-3.65	-3.33*	-3.55
900	-6.87*		-6.71*	-6.93	-4.12*	-4.34	-4.20*	-4.42
800	-6.78*		-6.72*	-6.92	-4.48#	-4.68	-4.56*	-4.76
700	-6.67*		-6.64*	-6-84	-4.69*	-4.89	-4.77*	-4.97
600	-6.55*		-£.55*		-4.81*	-5.44	-4.88*	-5.51
500	-6.42*		-6.43*		-4.88*	-0.29	-4.95*	-6.36
400	-6.27*		-6.28*		-4.91*		-4.97*	-6.77
300	-6.08*	•	-6-11*		-4-89*		-4.95*	-6.93
200	-5.84*		-5.86*	_	-4.81*		-4.85*	-6-17
200			-5.46*		-4.59*		-4-63+	
100	-5.44*				–		-4-13	
32	-4.76	-3.14	-4.79	-3.16	-4.11	••		
8	-3.89	-2.53	-3.92	-2.56	-3.39	-2.03	-3.42	-2.06

### V COMPONENT (M/SEC)

LEVEL (M)	GPAC	DIFF	GP A C	DIFF	GPAL	DIFF	GPAC	DIFF
GEO	3.28	0.01	3.28	0.01	3.28	0.01	3.28	0.01
1000	7.98*	14.15	5.80*	11.97	6.15*	12.32	7.52*	
900	7.15#	13.32	6.14*	12.51	5.90*	12.13	6.45*	12.62
800	6.69*	12.35	5.96*	11.62	5.42*	11.08	5.76*	11.42
700		12.01	5.75*	11.41	4.96*	10.62	5.24*	10.90
600	6.07*	11.18	5。54*	10-65	4.59*	9.70	4.83*	9.94
500	5.80*	9.67	5.34*	9-21	4-27*	8.14	4.48*	8-35
400	5.54*	8.66	5.10*	8.22	3.96*	7.08	4.15*	7.27
300	5.26*	7.63	4.86*	7.23	3.65*	6.02	3.84*	6.21
200	4.91*	6.49	4.55*	6.13	3.32*	4.90	3.48*	5.06
100	4.44*	5.23	4-12*	4.91	2.90*	3.69	3.06*	3.85
32	3.77*	4.75	3.49*	4.47	2.38*	3.36	2.51*	3.49
8	3.04*	4.22	2.81*	3.99	1.89*	3.07	1.99*	3.17

### AIR TEMPERATURE AND VAPOR PRESSURE

TAPE NO. Interval	_	37.0 2HR		38.0 2HR	139.0 12HR		140.0 12HR	
		Al	IR TEMPE	RATURE	(DEG C)			
LEVEL(M)	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	20.78	-0.42	20.76	-0.44	21.03	-0.17	21.03	-0.17
900	21.21	-0.99	21.19	-1.01	21.49	-0.71	21.48	-0.72
800	21.38	-2.12	21.37	-2.13	21.70	-1.80	21.67	-1.83
70C	21.51	-2,89	21.49	-2.91	21.84	-2.56	21.81	-2.59
600	21.56	-3.84	21.56	-3.84	21.93	-3.47	21.90	-3.50
500	21.62	-4.78	21.63	-4.77	22.02	-4.38	21.97	-4.43
400	21.64	-5.86	21-64	-5.86	22.06	-5-44	22.01	-5.49
300	21.65	-6.95	21.66	-6.94	22.11	-6.49	22.05	-6.55
200	21.61	-7.59	21.62	-7.58	22.09	-7.11	22.03	-7.17
100	21.51	-8.59	21.53	-8.57	22.03	-8.07	21.99	-8.11
32	21.21	-9.59	21.23	-9.57	21-78	-9.02	21.71	-9.09
8	20.72	-10.18	20.73	-10.17	21-30	-9.60	21.24	-9.66
2	19.55	-11.35	19.55	-11-35	20.04	-10.86	20.00	-10-90
0	18.25	XXXX	18.24	XXXX	18.72	XXXX	18-68	XXXX
			VAPOR P	RESSURE	(MB)			
TEAET(W)	GPAC	DIFF	GP AC	DIFF	GPAL	DIFF	GPAC	DIFF
1000	11.16	4.68	11.15	4.67	12.45	5.97	12.51	6.03
900	11.73	5.07	11.71	5.05	13.03	6.37	13.07	6.41
800	12.09	5.03	12.08	5.02	13-42	6.36	13.43	<b>6.37</b>
700	12.43	5.11	12.41	5.09	13.79	6.47	13.79	·· 47
600	12.70	5.12	12.69	5.11	14.60	6-50	14.07	<b>,9</b>
500	13.00	5.09	12.99	5.08	14.41	6.50	14.40	· · · · · · · · · · · · · · · · · · ·
400	13.26	5.12	13.26	5.12	14.71	6.57	14.71	€ √57
300	13.57	4.97	13.56	4.96	15.05	6.45	15.04	6.44
200	13.90	5.17	13.90	5.17	15.41	6.68	15.38	6.65
100	14.31	5.40	14.33	5.42	15.86	6.95	15.83	6.92
32	14.79	7.86	14.80	7.87	16.37	9.44	16.33	9.40
8	15.24	8.65	15.29	8.70	16.91	10.32	16.85	10.26
2	16.07	16-07	16.15	16.15	17.99	17.99	17.89	17.89
0	16.99	XXXX	17.09	XXXX	19.12	XXXX	18.98	XXXX

TAPE NU. INTERVAL		37.0 2HR		38.0 2HR		3 9 • 0 2 HR	_	40 • 0 2HR
		SOI	L TEMPI	ERATURE	(DEG C	)		
TEAET(W)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
-0.0	23.25	-14.85	23.26	-14.84	23.50	-14.60	23.47	-14.63
0.125	24.43	-0.35				-0.32	24.45	-0.33
-0.250	24.75	3.81	24.75	3.81	24.74	3.80	24.75	3.81
	24.31	4.48	24.31	4.48	24.29	4.46		4-47
-1.000	21.05	4.38	21.05	4.38	21.04	4.37	21.04	4.37
-2.000	24.43	7.93	24.44	7.94	24.44	7.94	24.44	7.94
			WIND SI	PEED (M.	/SEC1			
TEAST(W)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
8	4.95	3.15	4.83	3.03	3.90	2.10	3.97	2.17
2	2.60	1.10	2.53	1.03	2.00	0.50	2.04	
	9	SURFACE	ENERGY	TERMS (	LY/SEC	X1000		
PARAMETER	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
5101	1.75	0.15	1.76	0.16	1.75	0.15	1.76	0.16
R(N)	-0.92	XXXX	-0.91	XXXX	-0.92	XXXX	-0.92	XXXX
010.01	-1.11	XXXX					-0.62	XXXX
<b>□(E,O)</b>	1.63	XXXX	1.59	XXXX	1.03	XXXX	1.07	XXXX
C(S.O)	-1.43	XXXX	-1.43	XXXX	-1.36	XXXX	-1.36	XXXX
	Sui	RFACE SH	HEAR STA	RESS (D)	NES/CM	SQ1X10		
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF
T AU	6.74	XXXX	6.22	XXXX	2.64	XXXX	2.88	XXXX
	INTEG	RATED EV	APOTRA	NSPIRAT	ION IGMA	CH SQLX	100	
PARAMETER	R GPAC	DIFF	GPAL	DIFF	GP AC	DIFF	GPAC	DIFF
Ε	40.10	XXXX	40-10	XXXX	39.10	XXXX	39.20	XXXX

### VELOCITY COMPONENTS

KICH SC/SEC	1 7924	7724	9254	9504
TAPE NO.	141.0	142.0	143.0	144.0
INTERVAL	12HR	12HR	12HR	12HR

### U COMPONENT (M/SEC)

LEVET(M)	GPAC DIFF	GPAC DIFF	GPAC DIFF	GPAC DIFF
GEO	-8.95 -5.04	-8.95 -5.04	-8.95 -5.04	-8.95 -5.04
1000	-7.81* -8.03	-7.74# -7.96	-11.69*-11.91	-11.87*-12.09
900	-8.41* -8.63	-8.21* -8.43	-11.30*-11.52	-11.46*-11.68
800	-8.60* -8.80	-8.41 * -8.61	-11.01*-11.21	-11.15*-11.35
700	-8.65# -8.85	-8.47# -8.67	-10.73*-10.93	-10.87*-11.07
600	-8.62* -9.25	-8.45# -9.08	-10.46*-11.09	-10.59*-11.22
500	-8.54# -9.95	-8.36# -9.79	-10.18*-11.59	-10-30*-11-71
400	-8.41#-10.21	-8.26*-10.06	-9.88*-11.68	-10.00*-11.80
300	-8.22*-10.20	-8.C8#-10.06	-9.53*-11.51	-9.64*-11.62
200	-7.92* -9.24	-7.79 * -9.11	-9.08*-10.40	-9.18*-10.50
100	-7.39* -8.05	-7.28# -7.94	-8.38* -9.04	-8.47* -9.13
32	-6.47 -4.84	-6.38 -4.75	-7.27 -5.65	-7.35 -5.73
8	-5.27 -3.91	-5.20 -3.85	-5.92 -4.56	-5.98 -4.62

### V COMPONENT (M/SEC)

LEVEL(M)	GPAC	DIFF	GP AC	DIFF	GPAC	UIFF	GPAC	DIFF
GEO	1.83	-1.45	1.83	-1.45	1.83	-1.45	1.84	-1.44
1000	3.05*	9.22	2.78	8.95	3.63*	9.80	3.54*	9.71
900	1.86*	8.03	1.70*	7.87	2.76*	8.93	2.68*	8.85
800	1.15*	6.81	1-01*	6.67	2.31*	7.97	2.23*	7.89
700	0.66*	6.32	0.53*	6.19	2.01*	7.67	1.94*	7.60
600	0.31*	5.42	0.18*	5.29	1.77*	6.88	1.69*	6.80
500	0.03*	3.90	-0.08	3.79	1.56*	5.43	1.50*	5.37
400	-0.19	2.93	-0.30	2.81	1.37*	4.49	1.31*	4.43
300	-0.39	1.98	-0.50	1.86	1.19*	3.56	1.13*	3.50
200	-0.56	1.02	-0.67	0.91	1-00*	2.58	0.94*	2.52
100	-0-71	0.08	-0.82	-0.03	0.78*	1.57	0.73*	1.52
32	-0.78	0.20	-0.67	0.11	0.55*	1.53	0.51*	1.49
8	-0.69	0.48	-0.77	0.41	0.40*	1.58	0.36*	1.54

### AIR TEMPERATURE AND VAPOR PRESSURE

TAPE NO. INTERVAL		41 • 0 2HR	_	12.0 2HR	_	43.0 2HR	144.0 12HR			
AIR TEMPERATURE (DEG C)										
LEVEL(M)	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF	GF AC	DIFF		
1000	19.63	-1.57	19.71	-1.49	20-28	-0.92	20.95	-0.25		
900	20.01	-2.19	20.07	-2-13	20.62	-1.58	21.31	-0.89		
800	20.15	-3.35	20.22	-3.28	20.76	-2.74	21.45	-2.05		
700	20.26	-4.14	20.33	-4-07	20.84	-3.56	21.53	-2.87		
600	20.32	-5.08	20.39	-5.01	20.87	-4.53	21.57	-3.83		
500	20.39	-6.01	20.46	-5.94	20.91	-5.49	21.61	-4.79		
400	20-41	-7.09	20.49	-7.01	20.89	-6.61	21.59	-5.91		
300	20.43	-8.17	20.51	-8.09	20.89	-7.71	21.58	-7.02		
200	20.40	-8.80	20.48	-8.72	20.81	-8.39	21.52	-7.68		
100	20.32	-9.78	20-40	-9.70	20-68	-9.42	21.40	-8.70		
32	20.07	-10.73	20.15	-10-65	20.36	-10.44	21.08	-9-72		
8	19.64	-11.26	19.72	-11.18	19.88	-11.02	20.62	-10-28		
2	18.68	-12.22	18.75	-12-15	18.84	-12.06	19.61	-11.29		
0	17.57	XXXX	17.62	XXXX	17.60	XXXX	18.41	XXXX		
			VAROR I	PRESSURE	- 4441					
			VAPUR I	KE 3 3 U K	(MD)					
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	•	GPAC			
1000	11.62	5.14	11.67	5.19	10.78	4.30	11.29	4.81		
900	12-13	5.47	12.19	5.53	11.29	4.63	11.82	5.16		
800	12.47	5.41	12.54	5.48	11.60	4.54	12.16	5.10		
700	12.79	5-47	12.85	5.53	11.91	4.59	12.49	5.17		
600	13.07	5.49	13.13	5.55	12.16	4.58	12.74	5.16		
500	13.35	5.44	13.42	5.51	12.43	4.52	13.02	5.11		
400	13.61	5.47	13.67	5.53	12.67	4.53	13.27	5.13		
300	13.91	5.31	13.99	5.39	12.94	4.34	13.55	4.95		
200	14-19	5.46	14.26	5.53	13.22	4.49	13.84	5.11		
100	14-54		14.63	5.72	13.59	4.68	14.22	5.31		
32	14.91	7.98	15.01	8.08	13.97	7.04	14.62	7.69		
8	15.26	8.67	15.35	8.76	14.33	7.74	14.99	8.40		
2	15.84	15.64	15.94	15.94	14.94	14.94	15.62	15.62		
0	16.52	XXXX	16.62	XXXX	15.67	XXXX	16.38	XXXX		

TAPE NO. Interval	_	61.0 2HR	_	42.0 2HR	_	3.0 2HR	_	64.0 2HR
		301	L TEMP	ERATURE	(DEG CI	}		
TEAET(H)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
-0-0	21.83	-16.27	21.86	-16-24	21.83	-16.27	23.21	-14.89
-0 - 125	22.28	-2.50		-2.49	22.29			-0.37
-0.250	23.65	2.71	23.64	2.70	23.65	2.71	24.75	3.81
-0-500	24.21	4.38	24.21					4.48
-1.000	20.96			4.30	20.96	4.29	21.04	4.37
-2.000	20.66	4.16		4-16	20.66	4.16	24.44	7.94
			WIND S	PEED (M	/SEC)			
LEVET(W)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
8	5.33		5.27			4-14		
2	2.86			1.32		1.72	3.27	
	:	SURFACE	ENERGY	TERMS (	LY/SEC	X1000		
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
SID)	1.75	0.15	1.75	0.15	1.76	0.16	1.75	0.15
RINI	-0.93	XXXX	-0.92	XXXX	-0.90	XXXX	-0.94	XXXX
Q(C.O)	-1.18	XXXX	-1.17	XXXX	-1.53	XXXX	-1.52	XXXX
Q(E,0)	1.48	XXXX	1.46	XXXX	1.83	XXXX	1.95	XXXX
915.01	-1.21	XXXX	-1.21	XXXX	-1.21	XXXX	-1.37	XXXX
	SU	RFACE SH	IEAR ST	RESS (D)	YNE S/CM	SQ) X10		
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
TAU	9.14	XXXX	8.82	XXXX	11.92	XXXX	12.34	XXXX
	INTEG	RATED EV	APOTRA	NSPIRAT	ION (GM	CM SQ1X	100	
PARAMETE	R GPAC	DIFF	GPAC	DAFF	GPAC	DIFF	GPAC	DIFF
£	34.30	XXXX	34.30	XXXX	35.50	XXXX	40.20	XXXX

#### VELOCITY COMPUNENTS

K(LM SG/S Tape Nú. Interval	EC 1 7949 145.0 12HR	8154 14c » 0 12HR	3154 156•0 12HK	20034 157.0 6HR	
	υ	COMPONENT (M/	SEL)		
1000 900 800 700 600 500 400 300 200 100	GPAC DIFF -d. 95 -5.04 -7.84* -8.06 -8.33* -8.55 -8.52* -8.72 -8.57* -8.77 -8.55* -9.18 -8.47* -9.88 -8.35*-10.15 -8.16*-10.14 -7.87* -9.19 -7.34* -8.00	GPAC DIFF -8.95 -5.04 -7.97* -8.19 -8.55* -8.77 -8.72* -8.92 -8.76* -8.96 -8.73* -9.36 -8.64*-10.05 -8.51*-10.31 -8.30*-10.28 -8.00* -9.32 -7.46* -8.12	GPAC DIFF -3.87 0.03 -3.14* -3.36 -4.02* -4.24 -4.41* -4.61 -4.63* -4.83 -4.75* -5.38 -4.82* -6.23 -4.85* -6.65 -4.83* -0.81 -4.75* -5.20	GPAC DIFF -4.77 0.02 -6.72 -5.88 -7.06 -5.97 -7.10 -5.85 -7.06 -5.89 -6.98 -5.99 -6.85* -7.84 -6.70* -8.63 -6.50* -7.71 -6.22* -7.68 -5.76* -7.34	
	-6.43 -4.80 -5.25 -3.89	-6.52 -4.90 -5.32 -3.97	-4.06 -2.43 $-3.36 -2.00$	-5.01* -6.72 -4.07* -5.68	
	V	COMPONENT (M/	SEC)		
LEVEL(M) GEÜ 1000 900 800 700 600 500 400 300 200 100 32 8	GPAC DIFF 1.83 -1.45 2.70* 8.87 1.60* 7.77 0.92* 0.58 0.44* 6.10 0.09* 5.20 -0.17 3.70 -0.39 2.72 -0.57 1.80 -0.74 0.84 -0.88 -0.09 -0.92 0.06 -0.81 0.37	GPAC DIFF 1.83 -1.45 2.96* 9.13 1.76* 7.93 1.06* 6.72 0.57* 6.23 0.22* 5.33 -0.04 3.82 -0.27 2.85 -0.46 1.91 -0.63 0.95 -0.77 0.02 -0.82 0.16 -0.73 0.45	GPAC DIFF 3.28 0.0 7.60* 13.77 6.55* 12.72 5.86* 11.52 5.34* 11.00 4.52* 10.03 4.59* 8.46 4.24* 7.36 3.91* 6.28 3.56* 5.14 3.12* 3.91 2.57* 3.55 2.04* 3.22	GPAC DIFF 1.74 0.01 1.94 0.65 1.21 0.12 0.81 -0.10 0.54 -0.45 0.36 -0.82 0.22 -0.96 0.10* 0.80 0.01* 1.68 -0.07 1.39 -0.14 1.18 -0.17 1.36 -0.16 1.34	

### AIR TEMPERATURE AND VAPUR PRESSURE

TAPE NO. INTERVAL			146.0 12HR		156.0 12HR		157.0 6HR	
		Al	R TEMP	ERATURE	IDEG C	)		
LEVELIMI	GPAC	DIFF	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF
1000	20.37	-0.83	20.31	-0.89	20.37	-0.83	17.41	-0.09
900	20.76	-1.44	20.69	-1.51	20.81	-1.39	17.90	-0.50
800	20.92	-2.58	20.84	-2.66	20.99	-2.51	18.16	-1.04
700	21.02	-3.38	20.95	-3.45	21.13	-3.27	18.41	-1.59
600	21-08	-4.32	21-01	-4.39	21.21	-4.19	18.63	-2.37
500	21.16		21.08	-5.32	21.29	-5.11	18.86	-3.24
400	21.19	-6.31	21.11	-6.39			19.08	-4.12
200	21.21	-7.39	21.13	-7.47	21.37	-7.23	19.35	-5.05
200	21.18	-8.02		-8-09	21.34		19.68	-5.92
100	21.12	-8.98	21.03	-9.07	21.29		20.19	-6.51
32	20.86	-9.94	20.78	-10.02	21.01		20.95	-5.65
8	20.45	-10.45	20.38	-10.52	20.51	-10.39	21.81	-5.39
2	19.51	-11.39	19-45	-11-45	19.21	-11.69	23.82	-4.08
Q	18.41	XXXX	18.36	XXXX	17.85	XXXX	25.62	XXXX
			VAPOR I	PRESSURI	E (MB)			
LEVEL( M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	12.13	5-65	12.09	5.61	12.06	5.58	8.56	-3.81
900	12.69	6.03	12.62	5.96	12.59	5.93	9.05	-4.08
800	13.04	5-98	12.99	5.93	12-93	5.87	9.36	-4.58
700	13.36	6.04	13.31	5.99	13.26	5.94	9.66	-5.13
600	13.65	6.07	13.59	6.01	13.55	5.97	9.91	-5.57
500	13.96	6-05	13.90	5.99	13.86	5.95	10.19	-3.12
400	14.23	6.09	14.17	6.03	14.14	6.00	10.44	-1.04
300	14.53	5.93	14.47	5 - 87	14.47	5.87	10.74	1.06
200	14.84	6.11	14.77	6.04	14.80	6-07	11.07	2.82
100	15.22	6.31	15.15	6.24	15.22	6.31	11.50	4.44
32	15.61	8-68	15.53	8.60	15.70	8.77	12.04	6.41
8	15.99	9-40	15.91	9.32	16.19	9.60	12.65	7.27
2	16.61	16.61	16.51	16.51	17.17	17-17	13.92	13.92
0	17.33	XXXX	17.22	XXXX	18.21	XXXX	15.05	XXXX

TAPE NO. Interval		145.0 12HR		146.0 12HR		156.0 12HR		57.0 6HR			
SOIL TEMPERATURE (DEG C)											
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
-0.0	23.24	-14.86	23.20	-14.90	22.11	-15.99	20.08	-28.22			
-0.125	24.41	-0.37	24.41	-0.37	22.34	-2.44	20.80	0-47			
-0.250	24.74	3.80	24.74	3.80	23.66	2.72	24.39	3.56			
						4.36					
-1.000	21.04	4.37	21.04	4.37	20.97	4.30	20.89	3.72			
-2.000	24.43	7.93	24.43	7.93	20.66	4-16	20.60	3.60			
			mIND SI	PEED (M	/SEL1						
LEVEL(M)	GP AC	DIFF	CPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
8	5.32	3.52	5.38	3.58	3.94	2.14	4.08	1.88			
2	2.86	1.36	2.90	1.40	2.02	0.52	1.93	0.13			
	S	URFACE	ENERGY	TERMS	(LY/SECI	X1000					
PARAMETE	R GPAC	DIFF	GPAL	DIF	GPAC	DIFF	GPAC	DIFF			
SIDA	1.75	0.15	1.76	0	1.76	0.16	23.55	1.25			
R(N)	-0.96	XXXX	-0.95	XXXX	-0.87	XXXX	14.34	XXXX			
Q(C,0)	-1.16	XXXX	-1.18	XXXX	-0.69	XXXX	5.59	XXXX			
O(E <sub>c</sub> O)	1.59	XXXX	1.60	XXXX	0.95	XKXX	7.16	XXXX			
0(5.0)	-1.37	XXXX	-1.38	XXXX	-1.21	Xxx3.5	1.59	XXXX			
	SUR	FACE SH	EAR ST	RESS (D	YVE 2\CM	SULXIO					
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
TAU	9.16	XXXX	9.50	XXXX	2.66	XXXX	17.74	XXXX			
	INTEGR	RATED EV	APOTRAI	NSPIRAT	ICN (GM/	CH SQ)X	100				
PARAMETE	R GPAC	DIFE	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
E	39.20	XXXX	39.20	XXXX	34.30	XXXX	Ir 10	XXXX			

### VELOCITY COMPONENTS

KICH SU/S	EC   201	04	193	114	195	84	19	574
TAPE NO.	••		159	_	160.0		16	1.0
INTERVAL			6HR		6HR		6HR	
1111	-							
		U	COMPONE	NT (M/	SEU)			
			60.46	D / E E	0040	DIFF	GPAC	DIFF
TEAET(W)	GPAC		GPAC	DIFF	GPAC 8.95	-4.16	-8.95	-4.16
GEO	-4.76	0-03	-4.76	0.03	-6.83	-7.99	-8.63	-7.79
1000			-11.11 -		-9.10	-8.01	-8.96	-7.87
300				-9.50	<b>-9.10</b>	-7.84	-8.99	-7.74
800			-10.23	-8.98	-9.01	-7.83	-8.91	-7.73
700	-6.95	-5.77	-9.92	-8.74	-8.88	-7.89	-8.79	
600	-6.87	-5.88	-9.63	~8.64	-8.70*		-6.63*	
500	-6.76*		-9.33*		-8.70+ -8.51+		-8.42*	
4C0	-6.62*		-9.03*-		-8.23*		~8.16*	
300	-6.42*		-8.67*		-7.87*		-7.81*	
200	-6.15*		-8.24*		-7.29*			-8.81
100	-5.70*		-7.57*		-6.33*			-8.00
32	-4.96#		-6.55*		-5.15*			-6.72
ಕ	-4.03*	-5.64	-5.32*	-0.93	-5.15	-6.10	-20114	- 0 - 12.
		\	COMPON	ENT LM/	SECI			
TEAFT(W)	GPAC	DIFF	GPAC	DIFF	GPAC		GPAC	
GEO	1.74	0.01	1.79	0 - 0 ラ	1.83	0.09	1.83	0.09
1000	2.25	0.96	0.70	-0.59	~0 <b>.9</b> 5*		0.04	-1.24
300	1.41	0.33	0.40	-0.68	-1.67*			-2.28
800	0.98	0.07	0.25	-0.65	-2.04*			-2.62
70C	0.69	-0.30	C-16	-0.82	-2,27*		-2.014	-3.00
٥٥٠	0.48	-0.70	0.10	-1.07	-2.42*		-2.20	-3.38
500	0.33	-0.85	C-05	-1.13	-2.50*	-3.68		-3.50
400	0.20*	0.90	C.00*		-2.56	-1.86	-2.39	-1.69
300	0.104	1.77	-0.04	1.63	-2.57	-0.91	-2.43	-0.76
200	0.00*	1.46	-C.07	1.38	-2.56	-1.10	-2.42	-0.97
100	-0.06	1.25	-0.11	1.21	-2.46	-1.14	-2.34	-1.02
32	-0.11	1.43	-0.14	1.39	-2.20	-0.66	-2.11	-0.57
u	-0.11	1.39	-0.12	1.38	-1.82	-0.32	-1.74	-0.24

### AIR TEMPERATURE AND VAPOR PRESSURE

TARE NO. INTERVAL			159.0 6HR		100.0 Ohii		161.0 6HR				
AIR TEMPERATURE (BEG C)											
TEAFT(W)	GPAL	UIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
1000	17.47	-0.03	17.58	0.08	17.18	0.32	17.25	-0-25			
900	17.52	-0.48	18.C7	-0.33	17.64	-0.76	17.71	-0.69			
800	18.21	-0.99	18.36	-0.84	17.91	-1.29	17.96	-1.24			
700	18.45	-1.55	18.61	-1.39	18-17	-1.83	16.21	-1.79			
600	18.55	-2.34	18.81	-2.19	18.39	-2.61	18-43	-2.57			
500	18.90	-3,20	19.04	-3.06	18-63	-3.47	18.67	-3.43			
400	19.11	-4.09	19.26	-3.94	18.55	-4.34	18.90	-4.30			
300	19.39	-5-01	19.52	-4.88	19.14	-5.26	19.19	-5.21			
200	19.70	-5.90	19.84	-5.76	19.47	-6.13	19.51	-6.09			
100	20.19	-6.51	20.33	-5.37	19.99	-6.71	20.02	-6 <b>.6</b> 8			
32	20.97	-5.63	21.11	-5.49	20.77	-5.83	20.80	~5.80			
ځ	21.84	-5.36	21.99	-5.21	21.66	~5.54	21.69	-5.51			
2	23.84	-4.06	24.04	-3.86	23.79	-4.11	23.81	4.09			
0	25.64	XXXX	25.77	XXXX	25.58	XXXX	25.61	XXXX			
VAPOR PRESSURE (MB)											
LEVEL(M)	GPAL	DIFF	GPAL	DIFF	GPAL	DIFF	GPAC	DIFF			
1000	8.63	-3.74	8.29	-4.08	8.41	-3.96	8.51	-3.86			
900	9.11	-4.02	8.77	-4.36	8.91	-4.22	8.99	-4.14			
800	9.41	-4.53	9.07	-4.87	9.21	-4.73	9.28	-4.66			
70 U	9.11	5.08	9.36	-5.45	9.52	-5.27	9.57	<b>~5.22</b>			
οŭΟ	9.96	-5.52	9.61	-5.87	9.77	-5.71	9.83	-5-65			
500	10.24	-3.07	9.88	-3.43	10.05	-3.26	10.11	-3.20			
400	10.49	-0.99	10.13	-1.35	10.31	-1.17	10.35	-1.13			
300	10.79	1.11	10.42	0.74	10.60	0.92	10.66	0.98			
20 <b>0</b>	11.11	2.86	10.75	2.50	10.92	2.67	10.98	2.73			
100	11.55	4.49	11.21	4.15	11.39	4.33	11.42	4.36			
32	12.08	0.45	11.78	6.15	11.51	6.28	11.97	6.34			
ಕ	12.09	7.31	12-41	7.03	12.52	7.14	12.59	7.21			
2	13.95	13.95	13.79	13.79	13.85	13.85	13.92	13.92			
O	15.08	XXXX	14.96	XXXX	14.97	XXXX	15.04	XXXX			

TAPE NU.			159.0 6HR			0.0 HK	161.0 6HR	
* INTERVAC	•							
		SOIL	TEMPER	ATURE I	DEG ()			
	60 A C	DIFF	GP AC	DIFF	GPAC	DIFF	GPAC	DIFF
TEAET( M)	GPAC	041-	20.13 -			-28.25	20.06	-28.24
-0.0	20.09 -	-20021		0.48		0.46	20.79	0.46
-0.125		0.47	24.39	-	24.39	3.56	24.39	3.56
-0.250	24.40	3.57		3.79		3.79	24.45	3.78
-0.500	24.45	3.78		3.72	20.90	3.73	20.91	3.74
	20.89	3.72		3.66		3.67	20.67	3.67
-2.000	20.67	3.67	20.66	3.00	20001	J. 0 1		
		,	IND SPE	EED (M/	SECI			
			CD A C	DIFF	GPAL	DIFF	GPAC	DIFF
TEAET(W)		DIFF		3.13	5.47		5.40	
8	4.04		5.33				2.47	0.67
2	1.91	0.11	2-44	0.64	2.50	0.10		
	s	URFACE	ENERGY	TERMS (	LY/S&L	; x1000		
		Otes	GPAE	DIFF	GPAC	DIFF	GPAC	DIFF
PARAMETE	R GPAL	DIFF	23.55	1.25	23.57		23.57	1.27
S(D)	23.55	1.25		XXXX	14.35		14.36	XXXX
R(N)	14.35	XXXX	14-35	XXXX	5.61		5.61	
41010.	5.60	XXXX	5.39		7.14	••••	7.14	
	7.16	XXXX	7.32	XXXX	1.59		1.59	
9(5,0)	1.59	XXXX	1.62	XXXX	1.07		• • • •	-
	SUF	REACE SH	EAR STR	ESS (U)	MESICH	501X10		
		0155	CDAC	DIFF	<b>GPAC</b>	DIFF	GPAC	DIFF
PARAMET	ER GPAC	DIFF	GPAC	XXXX	23.24		22.98	XXXX
IAU	17.64	XXXX	22.36	<b>***</b>	43047	, ,,,,,,,,,		
	INTEG	RATED EV	/AROTRAN	SPIRAT	ION LGM	1/CH 201	K100	
			CDAC	DIFF	GPAL	UIFF	GPAC	DIFF
PARAMET		CIFF	GPAC	XXXX	15.00		15.00	
E	15.10	XXXX	15.30	***	15.00	, ,,,,,,		

### VELOCITY COMPONENTS

KICH SO	K(CM SQ/SEC) 20094		20344		19959		19969			
TAPE NO.	. 162	2.0	16	3.0	164.0		16	5.0		
INTERVA	61	HR	6	HR	61	HR	6HR			
U COMPONENT (M/SEC)										
LEVEL(M	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF		
GEO	-8.95	-4-16	-8.95	-4.16	-8.95	-4.16	-8.95	-4.16		
1000	-13.39 -	-12.55	-13.29	-12.45	-8.60	-7.76	-8.81	-7.97		
900	-12.76 -	-11-67	-12.61	-11.52	-8.84	-7.75	-8.98	-7.89		
800	-12.31 -	-11.06	-12.14	-10.89	-8.82	-7.57	-8.95	-7.70		
700	-11.93 -	-10.75	-11.76	-10.59	-8.73	-7.55	-8.83	-7.65		
600	-11.58 -	-10.59	-11.41	-10.42	-8.60	<b>-7.</b> 61	-8.70	-7.71		
500	-11.22*-	-12.21	~11.05*	-12-04	-8.43*	-9.42	-8.51*	-9.50		
400	-10.86*-	-12.79	-10.68*	-12-61	-8.23*	-10.16	-8.31*	-10-24		
300	-10.43*-	-11.64	-10-26*	-11.47	~7.97*	-9.18	-8.04*	-9.25		
200	-9.90*-	-11.36	-9.74*	-11.20	- 7.62*			-9.15		
100	-9.10*	-10.68	-8.95*	-10.55	-7.C5*			-8.69		
32	-7.87*	-9.58	-7.74*	-9.45	-6.13*	-7.84	-6.18*	-7.89		
8	-6.39*	-8.00	-6.28*	-7.89	-4.58*	-6.59	5-02*	-6-63		
		V	COMPON	FILT (M/	SECI					
		•			000.					
LEVEL(M	) GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC			
GEO	1.84	0.10	1.84	0.10	1.83		1.84	0.10		
1000	-2.22*	-3.51	-2.42*		-0.12*			-2.42		
900	-2.46*		-2.66*		-1.37*			-2.93		
800	-2.57*	-3.48	-2.75*	-3.66	-1.87*	-2.78	-2.21*	-3.12		
700	-2.60*	-3.59	-2.78*	-3.77	-2°16 <b>*</b>		-2.42*	-3.41		
600	-2.63*	-3.81	-2.80*		-2.34*			-3.74		
500	-2.63*	-3.81	-2.80*		-2.45*		-2.64*			
400	-2.61	-1.91	-2.77		-2.52	-1.82	-2.69	-1.99		
300	-2.58	-0.91	-2.73	-1.07	-2.55	-0.88	-2.70	-1.04		
200	-2.52	-1.05	-2.66	-1.21	-2.54	-1.08	-2.68	-1-22		
100	-2.38	-1.06	-2.51	-1.19	-2-44	-1.12	-2.56	-1-24		
32	-2-12	-0.58	-2.23	-0.69	-2.19	-0-65	-2.29	-0.75		
8	-1.74	-0.24	-1.83	-0.33	-1.60	-0.30	-1.89	-0.39		

# AIR TEMPERATURE AND VAPUR PRESSURE

TAPE NO. INTERVAL	162.0 6HR			3.0 HR	164.0 6HR		165.0 6HR	
		I A	R TEMPE	RATURE	(DEG C)			
LEVELINI	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	17.63	0.13	18.04	0.54	17.68	0.18	17.62	0.12
900	18.10	-0.30	18,59	0.19	18.21	-0.19	18.16	-0.24
800	18.38	-0.82	18.92	-0.28	18.53	-0.67	18.50	-0.70
700	18-64	-1.36	19.19	-0.81	18.81	-1.19	18.79	-1.21
600	18.84	-2.16	19.43	-1.57	19.05	-1.95	19.02	-1.98
500	19.07	-3.03	19.67	-2.43	19.30	-2.80	19.28	-2.82
400	19.27	-3.93	19.89	-3.31	19.55	-3.65	19.52	-3.68
300	19.53	-4.87	20.19	-4.21	19.84	-4.56	19.82	-4.58
200	19.85	-5.75	20.51	-5.09	20.21	-5.39	20.18	-5.42
100	20.33	-6.37	21.02	-5.68	20.74	-5.96	20.71	-5.99
32	21.07	-5.53	21.83	-4.77	21.56	-5.04	21.54	-5.06
8	21.92	-5-28	22.71	-4.49	22.49	-4.71	22.46	-4.74
2	24.02	-3.88	24.90	-3.00	24.69	-3.21	24.67	-3.23
0	25.64	XXXX	26.62	XXXX	26.57	XXXX	26.56	XXXX
			VAPOR P	RESSUR	(MB)			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF
1000	8.33	-4.04	8.67	-3.70	8.83	-3.54	8.74	-3.63
900	8.79	-4.34	9.16	-3.97	9.34	-3.79	9.27	-3.86
900	9.08	-4-86	9-48	-4.46	9.66	-4.28	9.60	-4.34
700	9.38	-5.41	9.79	-5.00	9.97	-4.82	9.92	-4-87
600	9.61	-5.87	10.04	-5.44	10.24	-5.24	10.18	~5.30
500	9.88	-3.43	10.32	-2.99	10.53	-2.78	10-47	~2.84
400	10.12	-1.36	10.58	-0.90	10.80	-0.68	10.74	-0.74
300	10.42	0.74	10.89	1.21	11.12	1.44	11.06	1.38
200	10.73	2-48	11.22	2.97	11-45	3.20	11.39	3.14
100	11.19	4.13	11.69	4.63	11.91	4.85	11.86	4.80
32	11.71	6.08	12.27	6.64	12.50	6.87	12.44	6.81
8	12.32	6.94	12.91	7.53	13-13	7.75	13.08	7.70
2	13.71	13.71	14.36	14.36	14.53	14.53	14.48	14.48
0	14.77	XXXX	15.50	XXXX	15.73	XXXX	15.68	XXXX

TAPE NO. INTERVAL	_	162+0 6HR		163.0 6HR		4.0 HR	165.0 6HR			
		śūI	L TEMP	ERATURE	(DEG C)					
LEVEL ( M)		DIFF			-	DIFF				
-0.0		28.23				-23.92		-23.92		
	20.79	0.46		3.40	23.79	3.46	23.79	3.46		
-0.250			25.06	4.23		4.23	25.07	4-24		
-0.500	24.47	3.80	24.48		24.48		24.48	3.81		
-1.000	20.91	3.74		3.77	20.93		20.93	3.76		
-2.000	20.67	3.67	24.44	7.44	24-45		24.45	7.45		
WIND SPEED (M/SEC)										
LEVEL(M)	GPAL	DIFF	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF		
8	6.64	4.44	6.55	4.35	5.31	3.11	5.38	3.18		
2	2.88	1.08	2.88	1.08	2 - 45	0.65	2.47	0.67		
	:	SURFACE	ENERGY	TERMS	(LY/SEC)	X1000				
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF		
S(D)	23.55	1.25	23.56	1.26	23.56	1.26	23.56	1.26		
R(N)	14.36	XXXX	14.31	XXXX	14.30	XXXX	14.30	XXXX		
Q(C,0)	5.48	XXXX	5.83	XXXX	5.97	XXXX	5.97	XXXX		
Q(E,0)	7.28	XXXX	7.83	XXXX		XXXX	7.69	XXXX		
	1.60	XXXX	0.64	XXXX	0.63	X <b>X X</b> X	0.63	XXXX		
	501	RFACE SH	EAR ST	RESS (D)	YNES/CM	SQJX10				
PARAMETE	R GPAC	DIFF	GPAL	DIFF	GPAL	DIFF	GPAC	DIFF		
TAU	28.96	XXXX	28.96	XXXX	23.00	XXXX	23.30	XXXX		
	INTEG	RATED EV	AFOTRA	NSP IRAT	EON (GM/	EM SQLX	160			
PAKAMETE	2 CPAL	DIFF	GP A C	DIFF	GPAC	DIFF	GPAC	DIFF		
E	- 30	XXXX	18.80	XXXX	18.60	XXXX	18.70	XXXX		

# VELOCITY CUMPONENTS

KICM SG/SEC	1 5469	5469	5469	5464
TAPE NO.	166-0	167.0	100.0	169.0
INTERVAL	6HR	6HR	6HR	6HR

#### U COMPONENT (M/SEC)

1 EVEL ( MA	GPAC	DIFF	GPAC	DIFF	GPAC			DIFF
GEO	-4-77	0.02	-4.76	0.03		0.03		0.02
1000	-5.76	-4.92	-9.07			-10.71		
900	-7.04	-5.95	-10.93	-9.84	-11.57	-10.48	-11.57	-10-48
800	-7.70	-6.45	-11-23	-9.98	-11.52	-10.27	-11.52	-10.27
700	-8-10	-6.92	-11.25	-10.07	-11.41	-10.23	11.41	-10.23
600	-9.33	-7-34	-11-16	-10.17	-11.27	-10.28	-11.27	-10.28
500 500	_0.55	-0.44	-11.01	<b>*-</b> 12.00	-11.08	<b>*-12.07</b>	-11.08	<b>*-12.07</b>
400	-0.4J+	_10.44	-10.80	B-12.73	-10.85	<b>*</b> -12.78	-10.85	<b>*-12.78</b>
	-0.014	-10.44	-10.51	- 11-72	-10-55	*-11 <sub>0.76</sub>	-10.55	<b>*-11.76</b>
300				*-11 56	-10-13	<b>*-11.5</b> 9	-10.13	<b>*-11.59</b>
200	-8.27*			*-10.98		*-11.00	-9-42	<b>*-11.00</b>
100	-7.83*			* -9.92		* <b>-9.93</b>		<b>*</b> -9.94
32	-6.92*					* <b>-8.33</b>		* -8.34
8	-5.68*	-7.29	-6.71	<b>4 -8.3</b> 2	-0.12	0.33	-0.13	. 5454

# V COMPONENT (M/SEC)

LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
GEO	1.74	0.0	1.74	0.01	1.74	0.01	1.74	0.01
	2.57	1.28	1.60	0.31	1.24	-0.05	1.24	-0.05
1000		0.86	1.17	0.09	1-03	-0.06	1.03	-0.G6
900	1.95			0.02	6.65	-0.06	0.84	-0.07
800	1.42	0.51	6.93				0.71	-0.28
700	1.01	0.02	0.76	-0.23	0.7C	-0.29		
600	0.72	-0.46	0.61	-0.56	0.58	-0.59	C.58	-0.59
500	0.50	-0.68	0.49	-0.68	0.47	-0.71	0.47	-0.71
	0.30*	1.00	0.384	1.08	0.36*	1.06	0.35*	1.06
400			0.26*	1.93	0.25*	1.92	0.25*	1.92
300	0.13*	1.80	•				0.13*	1.59
200	-0.02	1.43	0-14*	1.60	<b>0.13</b> *	1.59		
100	-0.20	1.11	0.01*	1.33	0.61*	1.33	0.01*	1.33
	-0.31	1.22	-0.08	1.45	-0.09	1.44	-0.09	1.44
32					-0.13	1.36	-0.13	1.37
A	-0-32	1-18	-0.13	1.36	-0.13	1000		

# AIR TEMPERATURE AND VAPUR PRESSURE

TAPE NO. Interval	166.0 6HR		167.0 6HR		168.0 БНК		169.0 6HR	
		Al	K TEMPE	RATURE	(DEG C)			
LEVEL (M)	GPAC	UIFF	GP A C	DIFF	GPAC	DIFF	GPAC	DIFF
1000	16.72	-0.78	16.79	-0.71	16.79	-0.71	16.68	-0.82
900	17.02	-1-38	17.21	-1-19	17.21	-1.19	16.94	-1.46
800	17.26	-1.94	17.49	-1.71	17-48	-1.72	17.11	-2.09
700	17.51	-2.49	17.77	-2.23	17.76	-2.24	17.31	-2.69
600	17.78	-3.22	18.04	-2.90	18.04	-2.96	17.51	-5.49
500	18.12	-3.98	18.37	-3.73	18.37	-3.73	17.77	-4.33
400	18.48	-4.72	18.72	-4.48	18.73	-4-47	18.07	-5.13
300	18.95	-5.45	19.19	-5.21	19.19	-5.21	18.49	-5.91
200	19.59	-6.01	19.81	-5.79	19.60	-5.80	19.03	-6.57
100	20.59	-6-11	20.79	-5.91	20.79	~5,, \$1	19.93	-6.77
32	22.27	-4.33	22.43	-4.17	22.42	-4.18	21.47	-5-13
8	24.19	-3.01	24.32	-2.88	24.32	2.88	23.29	-3.91
2	28.61	0.71	28.69	0.79	280€9	0.79	27.51	-0.39
0	32.86	XXXX	32.85	XXXX	32.84	XXXX	31.50	XXXX
			VAPOR P	RESSUR	- (MB)			
LEVEL(M)	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	7.79	-4.58	7.54	-4.83	7.53	-4.84	7.45	-4.92
900	8.47	-4.66	8.20	-4-93	8.20	-4.93	8.02	-5.11
800	8.99	-4.95	8.68	-5.26	8.69	5.25	8.42	-5.52
700	9.51	-5.28	9.17	-5.62	9.16	-5.63	8.84	-5.95
600	9.99	5.49	9.63	-5.85	9.53	-5.85	9.23	-6.25
500	10.54	-2.77	10.15	-3.16	10.14	-3.17	9.69	-3.62
400	11.10	-0.38	10.65	-6.79	10,69	-0.79	10-16	-1.32
300	11.81	2.13	11.39	1.71	11.39	1.71	10.79	1-11
200	12.67	4.42	12.24	3.99	12.24	3.99	11.53	3.28
100	14.01	6.95	13.59	6.53	13.59	6.53	12.77	5.71
32	16.01	10.38	15.63	10.00	15.63	10.60	14.62	8.99
8	18.43	13.05	18.11	12.73	18.09	12.71	16.90	11.52
2	23.80	23.80	23.55	23.55	23.54	23.54	21.92	21.92
O	28.96	XXXX	28.72	XXXX	28.72	XXXX	20.67	XXXX

TAPE NO. INTERVAL		6.0 HR		7.0 HR	168.0 6HR		169.0 6HR	
		SOIL	TEMPE	RATURE	CDEG C1			
LEVEL(M)	GPAL	DIFF	GP AC	DIFF	GPAL	DIFF	GPAC	DIFF
-0.0			27.29	-21.01	27.29 -	21.01	22.69	
-0.125	24.23	3.90	24.23	3.90	24-22	3.89	21.23	0.90
-0.250	25.10	4.27	25.09	4.26	25.09	4.26	24.45	3.62
-0.500	24,49	3.82	24.48	3.81	24.48	3.81		3.79
-1.000	2 4	3.77	20.93	3.76	20.93	3.76		3.73
-2.000	24.45	7.45	24.44	7.44	24.45	7.45	20.66	3.66
		à	wlinD SP	EED (M/	SEC)			
	0.5.44	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
TEAET(W)		3.50	6.72		6.73	4.53	6.73	4.53
8	5.70	0.99	3.27	1.47	3.28	1.48	3.28	1.48
2	2.79	0.44	3.21	104.	3020			
	3	SURFACE	ENERGY	TERMS (	TA\ZEC)	X1000		
PARAMETE	A GPAC	DIFF	GPAC	DIFF	GP AL	DIFF	GPAC	DIFF
5(0)	23.56	1.26	23.57	1.27	23.57	1.61	23.57	1.27
R(N)	13.58	XXXX	13.59	XXXX	13.60	XXXX	13.72	XXXX
Q(C,0)	3.46		3.40	XXXX	3.40	XXXX	3.27	XXXX
U(E.0)	8.52		8.59	XXXX	B. 60	XXXX	7.92	XXXX
0(5.0)	1.60		1.60	XXXX	1.60	XXXX	2.53	XXXX
	SU	RFACE SH	EAR STA	RESS (D)	INES/CM	SQ1X10		
PARAMETE	ED CDAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAL	DIFF
	6.76		7.98	XXXX	7.98	XXXX	7.96	XXXX
TAU								
	INTEG	RATED EV	APOTRA	NSPIRAT	ION (GM/	CM SUD	(100	
54544C <b>T</b>	CD 40	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
PARAMET			19.70	XXXX	19.90	XXXX	15.90	XXXX
E	19.60	****	13010	ARR/	_,_,		-	

KILM SEZ	KILM SC/SECT 5464			469	5	464	5	469
TAPE NU.	170	0.0	17.	1.0	17	2.0	17	3.0
INTERVAL	61	нŘ	ó)	HR	6	HR	6	HR
		U	COMPUN	ENT IM	(2EL)			
LEVEL (M)	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF	GPAC	DAFF
GE O	-4.76	0.03	-4.77		-8.95			
1000	-5.24	-4.40	-5.76	-4.92	-13.57	-13.13	-11.77	-10.93
900	-6.86	-5.77	-7.04		-13.97			
800	-7.60	-6.35	-7.71		-13.90			
700		-6.85	-8.09		-13.77			
600	-8.28	-7.29	-8.33		-13.59			
500	-8.42 <b>*</b>	-9.41			-13.38*	-	-	
400	-8.48*-	-10.41			-13.11*			
300	-8.43*				-12.75*			
200	-8.25*	-9.71			-12.24*			
100	-7.82 <b>≠</b>	-9.40			-11.39*			
32	-6.91*	-8.62	-6.92*	-8.63	-9.95*	-11.66	-9.93*	-11.64
ಕ	-5.68*	-7.29	-5.69*	-7.30	-8.13*	-9.74	-8.11*	-9.72
		٧	COMPONI	ENT (M.	/ SEC }			
TEAET(W)	GPAC	DIFF	GPAC	DIFF	GPAC		GPAC	
PE D	1.74	0.01	1.74	0.01	1.83	0.09	1.83	0.09
1000	3.10	1.81	2.57	1.28	-1.67*			-1.58
6.06	2.21	1.12	1.94	0.86	-1.68*		_	-2.60
800	1.58	0.67	1.42	0.51	2 c 05*			-2.79
700	1.12	0.14	1.02	0.03	- 2-19*			-3.08
600	0.80	-0.38	0.72	-0.46	~2·30*	-3.48		-3.41
500	0.55	-0.62	0.49	-0.68	-2.39*	3 <b>.</b> 57		-3.53
400	0.34*	1.04	C-30*	1.00	-2.48	-1.78	-2.45	-1.75
300	0.10*	1.83	0.14*	1.81	-2.54	-0.88	-2.52	-0.85
200	-0.01	1.45	- C-03	1.42	-2.60	-1.15	-2.58	-1.12
100	-0.18	1.13	-0-20	1.11	-2.59		-2.58	-1.26
32	-0.30	1.24	-0.31	1.22	-2.43	-0.89	-2.42	-0.88

#### AIR TEMPERATURE AND VAPOR PRESSURE

TAPE NU. INIERVAL	170.U 6HR		171.0 6HR		172.0 6HR		173.0 6HR	
		AI	R TEMPE	RATURE	(DEG C)			
LEVELIM)	GPAL	DIFF	GP AC	DIFF	GPAL	DIFF	GPAC	DIFF
1000	16.71	-0.79	16.61	-0.89	16.68	-0.82	16.68	-0.82
900	16.83	-1.57	16.75	-1.65	16.94	-1.46	16.94	-1.46
800	16.42	-2.28	16.90	-2.30	17-11	-2.09	17.11	-2.09
700	17.08	-2-92	17.05	-2.95	17.31	-2.69	17.30	-2.70
600	17.27	-3.73	17.25	-3.75	17.51	~3.49	17.50	-3.50
500	17.54	-4.56	17.51	-4.54	17.77	-4.33	17.70	-4.40
400	17.84	-5.36	17.82	-5.33	18.06	-5.14	18.07	~5.13
300	18,25	-6.15	18.25	-6.15	18.47	-5.93	18.46	-5.94
200	18.82	-0.76	18.61	-0.75	19.02	-6.58	19.03	-6.57
100	19.75	-6-94	19.75	-6.95	19.53	-6.77	19.93	-6.77
32	21.34	-5.20	21.33	-5,27	21.48	-5.12	21.47	-5.13
ઠે	23.18	-4.02	23.17	-4.03	23.29	-3.91	23.29	-3.91
2	21.43	-0.47	27.42	-0.48	27.54	-0.36	27.54	-0.36
٥	31.52	XXXX	31.51	XXXX	31.46	XXXX	31.48	XXXX
			VAPUR P	RESSUR	= (Mb)			
1EVEL(M)	GPAL	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF
1000	7.85	-4.52	7.72	-4.65	7.46	-4.91	7.46	-4.91
900	8.30	-4.75	8.31	-4.82	8.02	-5.11	8.02	-5.11
800	8.79	-5.15	8.74	-5.20	8.42	-5.52	8.43	-5.51
700	9.22	-5.57	9.17	-5.62	8.63	-5.96	8.84	-5.95
600	9.64	-5.84	5.61	-5.87	9.23	-6.25	9.23	-6-25
500	10.12	-3.19	10.09	-3.22	9.69	-3.62	9.69	-3.62
400	10.61	-C.87	16.58	-0.90	10.16	-1.32	10-16	-1.32
300	11.23	1.55	11.21	1.53	10.79	1.11	10.79	1.11
200	11.99	3.74	11.97	3.72	11.53	3.28	11.54	3.29
100	13.19	5.13	13.19	6.13	12.76	5.70	12.76	5.70
32	15.Ci	9.38	14.99	9.36	14.62	8.99	14.62	8.99
ರ	17.24	11.86	17.23	11.85	16.87	11.49	16.90	11.52
2	22.19	22.19	22.18	22.18	21.95	21.95	71.98	21.98
Q	26.54	XXXX	26.93	XXXX	26.60	XXXX	26.68	XXXX

TAPE NO. INTERVAL	170.0 6HK			171.0 6HR		72.0 HR	173.0 6HR			
		20)	IL TEMP	ERATURE	(0:6 4)	)	,			
LEVEL (M)	GPAC	D1FF	GP AL	DIFF	GPAL	DIFF	GPAL	DIFF		
~0.0	22.71	-25.59	22.71	-25.59	22.70	-25.60	22.70	-25.60		
-0.125	21.23	0.90	21.23	0.40	21.24	0.91	21.23	0.90		
-0.250	24.45	3.62	24.44	3.61	24.44	3.61	24.44	3.61		
-0.500	24.40	3.79	24.47	3.80	24.46	3.79	24.47	3.80		
~1.000	20.89	3.72	20.90	3.73	20.90	3.73	20.90	3.73		
-2.000	20.67	3.67	20.67	3.67	20.67	3.67	20.67	3.67		
WINC SPEED (M/SEC)										
LEVEL(M)	GPAC	DIFF	(PAC	DIFF	GPAL	DIFF	GPAC	DIFF		
8		3.49								
۷	2.79	0.99	2.75	0.99	4.04	2.24	4+03			
	Š	SURFACE	ENERGY	TERMS :	LY/SEC)	XIOOO				
PARAMETEI	H GPAL	ULFF	GPAC	DIFF	GP AL	DIFF	GPAC	DIFF		
S(v)	23.51	1.27	23.57	1.27	23.56	1.26		1.26		
R(N)	13-70	$\lambda \lambda \lambda \lambda \lambda$	13.70	XXXX	13.72	XXXX	13.72	XXXX		
w((, 0)	ذ ڌ . د	$\mathbf{x} \mathbf{x} \mathbf{x} \mathbf{x}$	3.33	XXXX	3.27	XXXX	3.27	XXXX		
~(E,O)	7.64	XXXX	7.04	XXXX	7.52	XXXX	7.92	XXXX		
(12.0)	2.53	λχΧχ	2.53	***	2.53	XXXX	2.52	XXXX		
	<b>5</b> 0H	KFACE SE	-EAR STA	(ESS 10)	MESZÉM	SQ) X10				
PARAMETEL	R GPAC	۵IF۲	GPAL	JIFF	GP AC	DIFF	GPAC	ULFF		
TAU	6.74	AXXX	0.74	XXXX	9.90		9.94			
	INIEG	KATED EV	APUTKAN	NSPIKAT	ICN (GM/	CM SG) X	160			
PAKAMETÉ	4 GPAL	DIFF	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF		
E	15.90	XXXX	15.90	XXXX	15.50	XXXX	15.90	XXXX		

# CASE UPG 2 GPAC UUTPUI DATA

KILM SE/SE	E() 54	64	100	04	100	G4	109	)U 9
TAPÉ NO.	174		176	0.0	177	· 0	178	3.0
INTERVAL	o t		21	'nŘ	21	ıK	21	4R
4111 (21177)	•							
		υ	CUMPUNE	EN] (M/	SEC)			
LEVEL(M)	GPAL	BIFF	<b>EPAC</b>	DIFF	GPAL	DIFF	GPAC	DIFF
υEU	-8-95	-4.16	-7.49	0.03	-7.49	0.03	-7.49	0.03
	-7.92	7.08	-5.22	-3.73	-5.19	-4.30	-6.96	-5.47
	-9 . 24	-6.15	-5.47	-3.47	-5.50	-4.06	-6.95	-5.45
	-9.91	-b. 66	-5.68	-3.73	- 5. 70	-3.76	-6.95	-5.00
	10.32	-9.14	-5.83	-3.55	-5.54	-3.57	-6.96	-5.03
,	10.56	-5.57	-5.91	-3.60	-5.91	-3.81	-6.83	-4.72
	10.67*-		-5.90	-3.92	~ 5.90	- 3.93	-6.68	-4.70
	10.09*-		- 5.79	-4.21	-5.75	-4.21	-6.45	-4.87
	10.60*-		-5.55	-3.52	-5.55	-3.52	-6.04	-4.06
	10.35*		-5.15	-2.14	-5.16	-2.74	-5.59	-3.10
	-9.78*-		-4.52	-1.94	-4.52	-1.34	-4.06	<b>-</b> 2.28
	-8-03*		-3.72*	-6.42	-3.72#	-6.42	~3.97*	
	-7.00*		-2.97#		-2.57*	-5.87	-3.17%	-6.07
		٧	COMPEN	ENT (M/	SE()			
LEVELIM)	OFAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF
GLU	1.84	0.10	1.33*	2.60	1.33*	2.06	1.32*	
1000	-0.33*	-1.02	-0.55	-0.59	-0.07	0.32	-2.94	-2.54
	-1.0	-2.09	-1.31	-0.96	-1.17	-0.82	2.89	-2.54
80(	-1.5.	2.40	-1.64	-0.57	-1.50	0 . 53	-2.90	-2.23
700	-1.56*	_	-1.56	-1.12	-1.95	-1.11	-2.96	-2.12
600	-2.27*	3.45	-2.31	-0.83	-2.30	-0.82	-3.12	-2,54
0 <b>ن</b> ز	-2.48*	=	-2.69	-0.32	-2.65	-0.32	-3.36	-0.
400	-2.00	-1.96	-3.12	0.11	-3.12	0.22	-3-07	-0.45
0 ن د ن ن د	-2.70	1.12	ە5.د-	-1.23	-3.50	-1.3	-5.59	-1.66
200	5-04	-1.44	~3.98	-3.10	- 3.98	30	-4.30	-3.42
100	-2.91	-1.59	-4.24	-4.24	-4.24	-4.24	-4.47	-4.47
.32	-2.14	-1.20	-4.C7	-2.75	-4.05	-2.74	-4.2i	-2.89
	-2.34	-U.8∠	3.41	-2.07	-3.42	-2.07	-3.52	-2.19
•	2 - 32	• • • •		-				

#### AIR TEMPERATURE AND VAPOR PRESSURE

TAPÉ NU. INTERVAL	17	4.0 HK	176.0 2HR		177.0 2HR			8 <b>.</b> 0 HR
		Δ <u>Σ</u>	k TEMPE	KATURÉ	(DEG C)			
LEVEL(M)	UPAL	UIFF	GP AC	UIFF	GPAC	ULFF	GPAC	DIFF
1000	10.37	-1.13	16.10	-0.20	10.11	-0.19	16.14	-0.16
900	16.49	-1.91	16.86	-0.04	10.36	-0.04	16.91	0.01
800	16.60	-2.60	17.31	0.11	17.31	0-11	17.38	0.18
700	10.76	-3.24	17.57	-0.23	17.57	-0.23	17.65	-0.15
600	16.97	دن.4-	17.00	-0.54	17.60	-0.54	17.75	-0.45
500	17.24	-4. £0	17.69	-1.11	17.69	-1.11	17.76	-1-04
400	17.56	-5.04	17.60	-1.40	17.00	-1 • • G	17.00	-1.32
00د	17.99	-6.41	17.49	-1.41	17-49	-1.41	11.57	-1.33
200	18.59	-7.01	17.32	-1.28	17-32	-1.28	17.39	~i.2l
100	19.55	-7.15	17.10	-1.40	17.15	-1.35	17.23	-1.27
32	21.16	-5.44	16.98	-1.82	15.98	-1.82	17.05	-1.75
ರ	23.02	-4.18	17.04	-2.45	17.04	-2.46	17.10	-2.40
2	27.35	-0.55	17.52	-2.38	17.54	-2.36	17.87	-2.03
Ú	31.43	$\mathbf{x} \times \mathbf{x}$	17.46	XXXX	17.40	XXXX	17.47	XXXX
			VAPOR P	Ke5Süki	( (Mb)			
LEVELLMI	OFAC	UIFF	GP AL	DIFF	GPAL	DIFF	GPAC	DIFF
1000	7.54	-4.83	6.72	~0.09	0.70	-0.05	6.72	-0.09
900	8.13	-5.00	7.15	0.05	7.17	0.11	7.15	0.09
δÚÜ	8.57	···5。37	7.48	0.16	7.50	0.18	7.49	-17
700	9.02	-5.17	7,79	0.21	7 <b>.</b> o (	0.22	7.79	.21
600	9.44	-6-Û4	8.03	0.13	<b>さ。</b> () う	0.18	8.03	0.18
500	9.94	3.37	8.27	د1.0	کی د ک	0-14	8.27	0.13
400	10.43	1.05	と。45	0.02	b. 45	0.02	8.43	0 = 0
300	11206	1.38	8.07	0.07	d. 67	0.07	8.66	0.06
200	11.84	3.59	8.90	0.23	8.50	0-23	ö <sub>0</sub> 8 7	0.20
100	13.04	5.98	5.15	0.40	9.20	0.47	7.18	0.45
32	14-00	9-23	9.61	4 . CZ	4.01	4. ÚZ	9.58	3.99
ŏ	17.00	11.70	10.10	451	10.09	4.50	10.07	4.48
2	22.00	22.06	12.42	12.42	12.51	12.51	14.23	14.23
ð	26.74	XXXX	12.12	XXXX	12.13	XXXX	12.06	XXXX

. .

TAPE NO.			_	76.0 2HŘ		77.0 2HR	1	78.0 2HR			
		501	L TEMP	RATURE	(DEG C	)					
LEVEL(M)	GPAC	DIFF	GPAC	UIFF	GPAC	DIFF	GPAL	DIFF			
-0.C	22.66	-25-64	7.61	-14.89	7.61	-14.89	7.62	-14.88			
-0.125	21.22		21.38			-0.84		-0.85			
-0.250	24.44	3.61	25.38	1.49	25.39	1.50	25.38	1.49			
-0.500			24.59	1.42	24.59	1.42	24.60	1.43			
-1.000	20.89	3.72	20.85	1.40	20.85	1.46	20.85	1.46			
-2.000	20.67	3.67	20.67	1.45	20.68	1.46	20.67	1.45			
wind speed (M/Sec)											
LEVEL(M)	GPAC	DIFF	GP A C	DIFF	GPAL	DIFF	GPAG	DIFF			
8		5.27									
Ž	3.62	1.82	-0.69	-3.19	-0	-3.35	-5.19	-7.69			
	:	SURFACE	EN ER GY	TERMS	LY/SEC	X1000					
PAKAMETE	R GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF			
S(D)	23.55	1.25	11.89	-0.01	11.90	-0.00	11.90	-0.00			
R(N)	13.69	XXXX	6.33	XXXX	6.33			XXXX			
Q(C.O)	3.36	XXXX	0.33	XXXX	0.32	XXXX	0.30	XXXX			
Q(E,0)	7.82	XXXX			3.18	XXXX	3.21	XXXX			
015:01	2.52	XXXX	2.82	XXXX	2.82	XXXX	2.83				
	SUI	RFACE SI	HEAR ST	RESS (D'	YNES/CM	541 X10					
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF			
TAU	8 - 84	XXXX	10.44	XXXX	10.44	ZZZZ	11.26	XXXX			
	INTEG	KATED EV	APUTRAI	NSP1RAT.	ION Cot	CM 3014	100				
PARAMETE	R GPAC	UIFF	GPAC	BACK	UC A€	DIFF	GPA(.	0.4-5			
£	15.70	XXXX	1.20	XXXX	1.20	XXXX	1.20	NAK <b>X</b>			

KICH SU/	K(CM SG/SEC) 11129		11	119		454		8.95 -1.42 7.23 -5.74 7.16 -5.66 7.05 -5.10 6.90 -5.02 6.72 -4.61 6.52 -4.54 6.30 -4.72 6.04 -4.01 5.72 -3.31		
TAPE NG.	17	9.0	18	0.0	183	1.0	18.	2.0		
INTERVAL	2	ĦR	2	HR	21	HR	2HR			
		U	COMPON	ENT (M/	2FC1					
LEVELIMI	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF	GPAC			
GEO	-8.95	-1.42	-8.95	-1.42	-0.95	-1.42	-8.95			
1000	-5.49	-4.01	-6.20	-4.72	-7.24	-5.76	-7.23			
900	-5.74	-4.24	-5.85	-4.35	-7.22	-5.72	-7.16			
800	~·5.95	-4.01	-5.98	-4.03	-7.21	-5.20	-7.05			
700	-6.09	-4.21	-6.10	-4.23	7.17	-5.29	-6.90			
600	-6.10	-4.06	-6.17	-4.06	-7.08	-4.97	-6.72			
500	-6.14	-4-16	-6.14	-4.16	-0.93	-4.95	-6.52			
400	-6.02	-4.44	-6.C3	-4.45	-6.69	-5.11	-6.30			
300	-5.78	-3.76	-5.78	-3.70	-0.33	-4.30	-6.04	-4.01		
200	-5.40	-2.99	-5.4C	-2.98	-5.84	-3.43	-5.72	-3.31		
100	-4.78	-2.20	-4.79	-2.21	-5.13	-2.55	-5.24			
32	-3.99*	-6.69	-3.99*	-6.69	-4.25*	-6.95	-4.53*	-7.23		
8	-3.20*	-6.10	-3.20*	-6.10	-3.40*	-6.30	-3.68*	-6.58		
		٧	COMPON	ENI (M/	2FC1					
LEVEL(M)	GPAL	DIFF	GPAL	DIFF	GPAL	DIFF	GPAC	DIFF		
GEO	1.83*	10ء ف	1.83*	3.16	163≉	3.16	1.83*			
1000	-1.43	-1.03	0.38	0.02	-3.38	-2.98	-3.38	-2.98		
900	-1.76	-1:41	- l °. e	<b>1.</b> 23	-3.33	-2.98	-3.43	-3.08		
٥٥٥	-2.09	-1.42	2.04	~l.37	-5.34	-2-67	-3.57	-2.90		
700	-2.42	- 1.58	-2.40	-1.56	-3.41	2.57	-3.72	-2.88		
600	-2.77	-1.30	-2.76	-1.28	3.58	-2.10	87ه.د-	-2.39		
500	-3.15	-C.78	-3.15	-0 c 78	3.82	-1.45	-3-99	1.662		
400	-3.50	~·0 a 32	-3.56	-0.32	-4-11	+9.,31	4.09	~0.85		
00د	-3.97	- Le 04	-3.97	-1.64	-4.41	-5,08	- 4.14	-1.81		
200	-4.30	<b>∴3.4</b> 8	-4.35	-3.47	-4.69	-3.81	-4.14	-3.26		
100	-4.58	-4.58	-4.57	-4.57	-4.80	-4.80	-4.00	-4.00		
32	-4.35	-3.03	-4.35	-3.03	-4.51	-3.19	-3.61	-2,29		
8	-3.64	-2.30	-3.64	-2.30	-3.75	-2-40	-2.97	-1.52		

# CASE UPG 2 GPAC QUIPUI DATA

# AIR TEMPERATURE AND VAPUK PRESSURE

TAPE NU.	17	9.0	18	0.0		1.0	_	2.0
INTERVAL	2	hR	2	HR	21	HR	21	-IR
		AIF	TEMPE	RATURE	(DEG C)			
TEAET(W)	GPAC	DAFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	10.11	-0.19	16.12	-0.18	10.10	-0.14	16.49	0.19
900	16.86	-0.04	16.86	-0.04	16.92	0.02	17-14	0.24
800	17.30	0.10	17.30	0.10	17.38	0.18	17.36	0.16
700	17.54	-0.26	17.54	-0.26	17.64	-0.16	17.47	-0.33
600	17.62	-0.58	17.63	-0.57	17.72	-0.48	17.51	-0.69
500	17.65	-1.15	17.65	-1.15	17.75	-1.05	17.55	-1.25
400	17.56	-1.44	17.56	-1.44	17.60	-1.34	17.57	-1.43
300	17.46	-1.44	17.46	-1-44	17.56	-1.34	17.62	-1.28
200	17.31	-1.29	17.32	-1.28	17.40	-1.20	17.67	-0.93
100	17.15	-1.35	17.16	-1.34	17.24	-1.26	17.81	-0.69
32	16.01	-2.79	17.01	-1.79	17.07	-1.73	18.03	-0.77
8	17.05	-2.45	17.06	-2.44	17.12	-2.38	18.42	-1.08
2	18.28	-1.62	18.81	1.09	16.61	-3.29	19.38	-0.52
ō	17.42	XXXX	17.42	XXXX	17.44	XXXX	20.08	XXXX
				DECCUSE	- 1M.13			
		·	VAPUR P	RESSURE	(MB)			
TEAET(W)	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF
1000	6.72	-0.09	6.76	-0.05	6.72	-0.09	6.91	0.10
900	7.15	0.09	7.19	0.13	7.10	0.10	7.39	0.33
800	7.48	0.16	7.51	0.19	7.49	0.17	7.68	0.36
700	7.79	0.21	7.8C	0.22	7.80	0.22	7.95	0.37
600	8.03	0.18	8.03	0.18	8.03	0.18	8-17	0.32
500	8.26	0.12	8.26	0.12	8.26	0.12	8.42	0.28
400	8.45	0.02	8.44	0.01	8.44	0.01	8.62	0.19
-100	8.66	0.06	8.67	0.07	8.65	0.05	3.90	0.30
200	8.90	0.23	8.90	0.23	8.00	0.15	9.15	0.49
100	9.19	0.46	9.19	0.46	9.18	0.45	9.54	0.81
32	9.58	3.99	9.59	4.00	9.62	4.03	10.02	4.43
8	10.06	4.47	10.08	4.49		4.46	10.55	4.96
Ž	16.56	16.56	19.5 i	19.51	7.04	7.04	11.76	11.76
			12.02	XXXX	11.95	XXXX	12.66	XXXX

TAPE NO. Interval	_		1	80.0 2HR		181.0 182.0 2HR 2HR					
		Sül	IL TEMPI	ERATURE	(DEG CI	)					
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
					7.62						
-0.125					21.38						
-0.250	25.39	1.50	25.38	1.49	25.38	1.49	25.53	1.64			
-0.500	24.60	1-43	24.60	1.43	24.61	1.44	24.60	1.43			
-1.000											
-2.00 C	20.67	1.45	20.67	1.45	20.68	1.46	24.45	5.23			
	WIND SPEED (M/SEC)										
TEAFT(W)	GPAL	DIFF	GP A C	DIFF	GPAC	DIFF	GPAC	DIFF			
8	4.87	1.67	4.67	1.67	5.08	1.88	4.74	1.54			
					13.14						
	:	SUKFACE	ENERGY	TERMS	(LY/SECI	X1000					
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAL	UIFF	GPAC	DIFF			
SIDI					11.87						
R(N)	دده				6.32			XXXX			
O(C.O)	0.30	XXXX	0.29	XXXX	0.27	XXXX	1.08	XXXX			
01E.01	3. 21	XXXX	3.20	XXXX	3.24	AXXX	4.32	XXXX			
0(2,0)	2.82	XXXX	2.81	XXXX	2,82	XXXX	0.11	XXXX			
	SU	KFALE SH	EAR STA	4655 (D)	## Karase <b>c</b> M	Sul X10					
PAKAMETE	B GPAU	DIRE	GPAC	DIFF	5PAC	DIFF	SPAC	DIFF			
					12.64						
	INT E Ģi	KATEU EN	APOTRA1	VSP IRAT	ICN (6%)	(IM SWIX	1 00	42			
PAKAMETE	B CDV.	NIFE	CDAI	DIEE	1.0 M	DIEE	COAF	DIFF			
E					1.20						
-	1.20	7777	1020	^^^^	1.20	^^^^	3.20	^^^^			

%(CM SQ/SEC) 13559			13	569	13	324	54	59	
TAPE NO.	183	3.0	18	4.0	18	5•Ù	186	7.50 0.03 5.24 -3.76 5.47 -3.97 5.61 -3.66 5.67 -3.80 5.65 -3.55 5.59 -3.61 5.33 -3.30 5.11 -2.69 4.75 -2.17 4.15* -6.85 3.40* -6.30 GPAC DIFF 1.33* 2.66 1.01 -0.61 1.40 -1.05 1.82 -1.15 2.23 -1.39 2.59 -1.11 2.90 -0.53 3.43 -1.10 -2.74 3.62 -2.74 3.69 -3.69 -3.69 -3.69 -3.69 -3.69	
INTERVAL	21	HR	21	HR	21	HR .	21	HR	
		U	COMPON	ENT (M/	SEC)				
LEVELIMA	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	<b>GPAC</b>		
GEO	-8-95	-1.42	-8.95	-1-42	-7.50	0.03	~7.50		
1000	-6.17	-4.68	-5.54	-4.05	-5.78	-4.29	-5.24		
900	-5.91	-4.41	-5.77	-4-27	-5-62	-4.12	-5.47		
800	-5.93	-3.98	-5-87	-3-93	~5.66	-3.71	-5.01		
760	-5.91	-4.03	<b>-5.88</b>	-4.00	-5.64	-3.77	-5-67		
600	-5.85	-3.74	-5.83	-3.72	-5-59	-3.48	-5-65		
500	-5.75	-3.77	-5.74	-3.77	-5.50	-3.52	-5.59		
400	-5.63	-4.05	-5.62	-4.05	-5.37	-3.80	-5-49		
300	-5.46	-3.43	-5.45	-3.43	-5.20	-3.18	-5.33		
200	-5.22	-2.81	-5.22		-4-98		-5.11		
100	-4.83	-2.25	-4.83		-4-60		-4-75		
32	-4.21*		-4.21*		-4.01*				
8	-3.42*	-6.32	-3.42*	-6.32	-3.25*	-6.15	-3-40*	-6.30	
		V	COMPON	ENT (M/	SEC.)				
TFAET [W]	GPAC	UIFF		DIFF	GPAC	DIFF	GPAC		
GEU	1.84*		1.83*		1~33*				
1000	-0.57		-1.50		-0.27		-1.01		
900	-1.74	-1.39	-1.97	-1.62	-1.33	-0.98	-1.40		
800	-2.31	-1.64	-2.39	-1.72	-1 . 67	-1.20	-1.82		
700	-2.72	-1.88	-2.77	-1.93	-2.28	-1.44	-2.23		
600	-3.05	-1.57	-3.07	-1.000	-2.62	-1.14	-2.59		
500	-3.30	-0.93	-3.31	-0.94	-2.87	-0.51	-2.90		
400	-3.51	-0.27	64.2	- 5.28	-3.09	0.15	-3 - 19		
300	- 3260	-1.30	1047	-1.34	- 3 - 25	-0.92	-3-43		
200	-3.T	-2.57	-3.76	-2.88	-3.16	-2.48	-3.62		
100	~3.70	-3.70	-3.70	-3.70	-2-33	-3.33	3 - 69		
32	-3.38	-2.06	-3.39	-2.07	-3.05	1.73	_		
8	-2.79	-1.44	-2.60	-1.45	-2-53	-1.18	-2.92	-1.57	

#### AIR TEMPERATURE AND VAPOR PRESSURE

TAPE NU. Interval	183.0 2HR			4.0 HK	185.0 2HR			6.0 HR
		Al	R TEMPE	RATURE	IDEC CI			
TEAET ( W)	GPAC	UIFF	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF
1000	16.45	0.15	16.43	0.13	10.45	0.15	16.34	0.04
900	17.07	0.17	17.06	0.16	17.G9	0.19	17-04	0.14
800	17.28	U_08	17.27	0.07	17-29	0.09	17.29	0.09
700	17.39	-û.41	17.39	-0.41	17-41	-0.39	17.40	-0.40
600	17.43	-0.77	17-43	-0.77	17.45	-0.75	17.43	-0.77
500	17.49	-1.31	17.48	-1.32	17.50	-1.30	17.45	-1.35
400	17.51	-1-49	17.50	1.50	17.53	-1.47	17.44	-1.56
300	17.50	-1.34	17.56	-1.34	17.59	-1.31	17.45	-1.45
200	17.63	-0.97	17.63	-0.97	17.64	-0.96	17.49	-1.11
100	17.70	-0.74	17.77	-C-73	17.77	-0.73	17.64	-0.86
32	18.01	-0.79	18.01	-0.79	18.01	-0.79	18.01	-0.79
8	18.39	-1.11	18.39	-1.11	18.41	-1.09	18.69	-0.81
2	19.30	-0.54	19.35	-0.55	19.37	-0.53	20.4C	0.50
O	20.11	XXXX	20.10	XXXX	20.14	XXXX	21.98	XXXX
			VAPOR P	RESSURE	(MB)			
TEAET(W)	GPAL	DIFF	GP AC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	6.94	0.13	6.91	0.10	6.54	0.13	6.84	0.03
900	7.41	0.35	7.38	0.32	7.41	0.35	7.32	0-26
800	7.69	0.37	7.60	0.36	7.69	0.37	7.01	0.29
700	7.97	0.39	7.94	0.30	1.96	೦。೨೪	7.90	0.32
600	8.18	66.0	€.17	0.22	8.18	0.33	8.12	0.27
50C	8.43	0.29	8.43	0.25	C-43	0.29	8.36	0.22
400	8.65	0.22	8.64	2.21	5.65	0.22	8.59	0.16
300	8.91	0.32	£.91	0.31	მ. ′±2	0.32	8.91	0.31
200	9.19	じゅうえ	9.19	0.52	9.21	U.54	9.23	0.56
100	9.54	0.05	9.58	0.85	9.57	0.86	4.70	1.05
32	10.07	4.48	16.06	4.47	10.09	4.50	10.63	5.04
8	10.61	5.02	10.61	5.02	10.63	5.04	11.71	6-12
2	11.81	11.81	11.81	11.81	11.94	11.84	14-25	14.25
O	12.74	XXXX	12.74	XXXX	12.81	XXXX	16.60	XXXX

TAPE NO. Interval		33.0 2HR		34.0 2HR	185•0 2HR			6 • 0 HR			
		102	L TEMP	RATURE	(DEG C)						
LEVEL(M)	GPAC	DIFF	GP AC	DIFF	GP AC	OIFF	GPAC	DIFF			
-0.0	19.71	-2.79	19.71	-2.79	19.72	-2.78	19.87	-2.63			
-0.125	23.74	1.52	23.75	1.53	23.75	1.53	23.73	1.51			
-0.250	25.54	1.65	25.54	1.65	25.53	1.64	25.53	1.64			
-0.500	24.61	1.44	24.61	1.44	24.61	1.44	24.59	1-42			
-1.000	20.86	1.47	20,86	1.47	20.86	1.47	20.86	1.47			
-2.000	24.44	5.22	24.45	5.23	24.44		24.45	5.23			
WIND SPEED (M/SEC)											
TEAET(W)	GPAL	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF			
8	4.44	1.24	4.44	1.24	4.14	0.94	4.50	1.30			
2	1.94	-0.56	1.94	-0.56	1.84	-0.66	2.17	-0.33			
	9	SURFACE	ENERGY	TERMS	(LY/SEC)	X1000					
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
SIDI	11.89	-0.01	11.89	-0.01	11.88	-0.02	11.89	-0.01			
R(N)	6.11	XXXX	6.11	XXXX	<b>5.1</b> 0	XXXX	5.89	XXXX			
010,01	1.69	XXXX	1.70	XXXX	1.69			XXXX			
4(E.0)	4.30	XXXX	4.30	XXXX	4.29	XXXX	3.96	XXXX			
0(5.0)	0.12	XXXX	0.12		0.12	XXXX	0.61	XXXX			
	SU	RFACE SI	HEAR STE	RESS (D	Y NE SJC M	SUIXIO					
PARAMETE	R GPAC	DIFF	GPAC	DIFF	φPA(	DIFF	GPAC	DIFF			
I AU	13.00	XXXX	13.08	XXXX	11.94	XXXX	5.32	XXXX			
	INTEG	RATEU EL	/APOTRAI	NSPIRAT	ION (GM/	CH SQLX	100				
PARAMÉTE	R GFAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF			
Ε	3.10	XXXX	3.10	XXXX	3.20	XXXX	3-20	XXXX			

KICM SC	/SEC1	5459		5459				
TAPE NO		87.0				5459		5459
INTERVA	_	2h8		88.0		89.0	19	90.0
	_	2110		2HR		2HR		2HR
			II COMOO	NE NE ALE				
			U COMPO	NENI (M	/SEC1			
LEVEL ( M	) GPAC	DIFF	GPAC	DIFF	E 0.4 5			
GEO	-7.50	0.03	-7.49	0.04		DIFF		<b>1110</b>
1000	-6.79	-5.30	-6.42	~4.53		0.03		0.03
900	-6.67	-5.17	-6.61			-4.93	-5.79	-4.30
800	-6.73	4.78	-6.71	-5.11	-6.61	-5.11	-5.50	-4.06
700	-6.67	-4.79	-6.66	-4.76	-6.71	-4.76	-5.65	-3.70
600	-0.54	-4.43		-4.78	-6.66	-4.79	-5.08	-3.81
500	-6.36	-4.38	-6.54	-4.43	-0.53	-4.43	-5.66	-3.56
400	-6.14	-4.56	-6.25	-4.38	-6.36	-4.38	-5.59	-3.61
300	-5.88	-3.85	-6.14	-4.56	-6.14	-4.56	-5.49	-3.91
200	-5.55	-3.14	-5.88	-3.85	-5.88	-3.85	-5.33	-3.30
100	-5.09	-2.51	-5.55	-3.14	-5.56	-3.14	-5.11	-2.70
32		-7.10	-5.09	- 2.51	-5.09	-2.51	-4.75	-2.17
8		-6.49	-4.40*	-7.10	-4.40*	-7.10	-4.15*	
ŭ	3.77	-0.49	-3.59*	-6.49	-3.59*	-6.49	-3.40*	-6.30
		٧	COMPON	ENT IM	(SEC)			
1505.				<b>-</b> ,	3667			
LEVEL(M)		DIFF	GPAC	DIFF	GPAL	DIFF	GPAL	0156
GEO	1.33*	2.66	1.33*	2.66	1.33*			DIFF
1000	-0.48	-0.08	-1.36	-0.96	-1.36	-0.56	1.33*	2.66
900	-1.79	-1.44	-1.94	-1.59	-1.93	-1.58	-0.13	0.27
800	-2.69	-2.02	-2.73	-2.06	-2.73	-2.06	-1.23	-0.88
700	-3.06	-2.22	-3.08	-2.24	-3.08		-1.76	-1.09
600	-3.33	-1.85	-3.34	-1 6	-3.00	-2.24	-2.21	-1.37
500	-3.53	-1.16	-3.5%	-1.16	-3.54	-1.85	-2.58	-1.10
400	-3.72	-0.48		48		-1.17	~2.89	~0.452
300	-3.86	-1.53	-3.86	11.53	-3.72 -3.85	-û.48	3.18	0.06
200	-3.56	-3.08	3, 96	-3.08		-1.53	-3.43	-1.10
100	-3.95	-3.95	-3.94	-3.94	-3.96	-3.08		-2.74
32	-3.65	-2.33	-3.64	-2.32	~3.95	-3.35	-3.69	-3.69
8	-3.05	-1.70	-3.05	-1.70	-3.64	-2.32		-2.15
			_ 0 0 7	1 - 10	-3.05	~1.70	-2 92	_ 1 57

#### AIR TEMPERATURE AND VAPOR PRESSURE

TAPE NU. Interval	187.0 2HR			8.0 HR		9.0 HR	190.0 2HR	
		AI	R TEMPE	RATURE	(DEG C)			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	16.37	0.07	16.38	0.08	16.38	0.08	16.35	0.05
900	17.10	0.20	17.11	0.21	17.08	0.18	17.03	0.13
800	17.30	0.16	36	0.16	17.31	0.11	17.25	0.05
700	17.49	-0.31	17.49	-0.31	17.39	-0.41	17.31	-0.49
600	17.51	-0.69	17.51	-0.69	17.35	-0.85	17.27	-0.93
500	10.07	-6.73	17.53	-1.27	17.29	-1.51	17.22	-1.58
400	17-49	-1.51	17.50	-1.50	17.16	-1.84	17.11	-1.89
300	17.51	-1.39	17.51	-1.39	17.63	-1.87	16.99	-1.91
200	17-53	-1.07	17.53	-1.07	16.85	-1.75	16.83	-1.77
100	17-69	-0.81	17.66	-0.84	16.72	-1.78	16.71	-1.79
32	18-01	-0.79	18.02	-0.78	1.6.63	-2.17	16.62	-2.18
8	18-68	-0.82	18.69	-0.81	16.84	-2.66	16.84	-2.66
2	20-40	0.50	20.41	0.51	17.61	-2.29	17.60	-2.30
0	21.98	XXXX	21.99	XXXX	18.23	XXXX	18.23	XXXX
			VAPOR P	KESSURE	E (NB)			
LEYEL(M)	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	6.83	0.02	6.84	0.03	6 • 84	0.03	6.88	0.07
900	7.32	0.26	7.33	0.27	7.31	0.25	7.34	0.28
£	7.62	0.30	1.63	0.30		0-27	7.03	0.29
300	7.91	و د ۵۰	7.91	0.35	7.85	1.27	7.85	0.27
000	8.16	0.25	6.11	0.26	8.03	0.18	805	J. 20
500	8.35	0.21	8.35	0.23	8.23	0.03	8-25	0.11
400	8.56	0.13	8.56	0.13	ខ. 4ព	-0.03	3.44	0.01
300	8 - 85	0.25	8.85	0.25	8.62	0.02	8.66	0.06
200	9-17	0.5C	9.18	0.5i	8.85	0.18	8.91	0.24
100	9.73	1.00	9.73	1.00	9.23	0.50	9.23	0.55
32	10.58	4.599	10.58	4.99	9.81	4.22	9.86	4.27
Ė	11.69	6.10		6.10	10.59	5.00	10.62	5.03
2	14-23	14.23	14.23	14.23	12.50	12.50	12.51	12.51
ũ	16.57	XXXX	16.58	XXXX	14.04	XXXX	14.07	XXXX

# LASE UPG 2 GPAC OUTPUT DATA

TAPE NO. INTERVAL		57.₀0 25R		8.0 !HK		HK HK		
		201	L TEMPE	RATURE	(DEG C)			
TEAFT(W)	GPAL	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF
-0.0	19.88	-2.62		-2.62	0.25	-14.25	8.26	-14-24
-0.125	23.13	1.51	23.73	1.51		-0.75		
-0.250		1.64		1.64	25.39	1.50	25.39	1.50
	24.61	1.44	24.61	1-44	24.61	i . 44		1.43
-1.000		1.47				1-46	20.85	1.46
-2.000						1-46		1-45
			wind SF	PEED (M.	/SEU1			
LEVEL(M)	GPAC	UIFF	GPAC	DIFF	GPAC	01FF	GPAC	DIFF
8	4.73	1.53	4.73	1.53	4.73	1.53	4.49	1.29
<u>_</u>		-0.23					2.03	-0.47
	:	SURFALE	ENERGY	TERMS	(LY/SEC)	X1000		
PARAMETE	K GFAL	DIFF	GPAC	DIFF	GP AL	ÜIFF	GPAL	DIFF
S(D)	11.89		11.51	0.01	11.91	0.61	11.91	0.01
R(N)	5.69		5.9C	XXXX	0.22	XXXX	6.22	XXXX
016,01	1.31	XXXX	1.32	XXXX	0.55	XXXX	0.56	XXXX
U(L,O)		AAXX	3.97	$\mathbf{X}\mathbf{X}\mathbf{X}\mathbf{X}$	60		2.80	XXXX
		XXXX	0.61	XXXX	ఉ. కర	XXXX	2.86	XXXX
	\$0)	KEACE SE	LAK STA	(£5\$ (0)	YNESZEM	501X10		
PARAMETÉ	F GPAC	LIFE	GPAC	0186	68AC	DIFF	GPA(	1110
	5 <b>-</b> 5೮	λλάχ	5.58	XXXX	>.58	XXXX	5.32	XXXX
	INTEG	KATEL ÉV	APUTRA	SPIKAT	ILN (GK.	/UM 541%	100	
PARAMOTE	к срас	ultt	GPAL	3146	UPAL	ÜIFF	GPAL	DIFF
	نء • ﴿	XXXX		***	1-40	AAKA	1.70	XXXX

#### CASE DPG 2 GPAL HUIPUT BATA

TAPE NO.	K(CM SC/SEC) 5459 TAPE NO. 191.0 INTERVAL 2HR		19	464 2.0 HR	19	464 4.0 HR	19	.119 16.0 HR
	· <del>-</del>	• • • • • • • • • • • • • • • • • • • •	•	* 111	2	III	•	.nr
		ز	COMPON	ENT (M)	(SEC)			
LEVEL(M)	GPAL	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
GEO	-7.49	0.03	-8.95	-1.42	-8.55	-1.42	-10.01	0.03
1000	-5.24	-3.76	-7-24	-5.76	-5.51	-4.02	-4.96	-4.03
900	-5.47	-3.97	-7.20	-5.70	-5.73	-4.23	-5.04	-3.92
800	-5.61	-3.66	-7.12	-5.18	-5.88	-3.93	-5.11	-3.80
700	-5.67	-3.79	-7.00	-5.12	-5.93	-4.06	-5.23	-3.70
600	-5.66	-3.55	-6.85	-4.74	-5.92	-3.81	-5.26	-3.35
500	-5.59	-3.61	-6.65	-4.68	-5.86	-3.88	-5.31	-3.02
400	-5.49	-3.91	-6.42	-4.84	-5.75	-4.17	-5.39	-2.72
300	-5.33	-3.30	-6.15	-4.12	-5.60	-3.57	-5.42	-3.09
200	-5-11	-2.69	-5.82	-3.41	-5.37	-2.96	-4.80	-4.02
100	-4.75	-2.17	-5.35		-5.G1	-2.43	-2.39	-1-61
32	-4-15*		-4.63*		-4.38*		1.92	-1.31
8	-3.39*	-6.29	-3.79*	-6.69	-3.59*	-6.49	3.29	0.60
		٧	COMPON	ENT (M/	SEC)			
LEVET(W)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
GEO	-3.69	-2.36	1.83*	3.16	1.83*	3.16	1.77*	3.54
1000	-3.47	-3.07	-3.38	-2.98	-1.44	-1.04	-1.40	0.43
900	-2.92	-2.57	-3.39	-3.04	-1.83	-1.48	-1.52	0.20
800	1.01*	1.68	-3.51	-2.84	-2.25	-1.59	-1.69	-0.11
700	1.02*	1.86	-3.66	-2.82	-2.07	-1.83	-1.88	-0.51
600	-1.33	0.15	-3.84	-2.36	-3.03	-1.56	-1.97	-0.25
500	1.01*	3.38	-4.01	-1.64	-3.34	-0.97	-2.03	0.04
400	1.40*	4.64	-4.17	-0.93	-3.62	-0.39	-2.11	0.30
300	1.62*	4.15	-4.30	-1.97	-3.86	-1.53	-2.57	-0.54
200	2.23*	3.11	-4.39	-3.51	-4.05	-3.17	-5.40	-4.72
100	2.59	2.59	-4.35	-4.35	-4.10	-4.10	-5.32	-4-64
32	2.90*	4.22	-4.03	-2.71	-3.85	-2.53	-3.01	-1.96
છં	3.18*	4.53	-3.38	-2.03	-3.24	-1 - 90	-1-16	-0.88

# AIR TEMPERATURE AND VAPOR PRESSURE

TAPE NO. INTERVAL			_	2.0 HR	-	4.0 HR	_	16.0 HR	
		AI	R TEMPE	RATURE	(DEG C)				
LEVEL(M)	GPAC	DIFF	CPAC	DIFF	GPAC	DIFF	GPAC	DIFF	
1000	10.34	0.04	16.37	0.07	16.33	0.03	15.97	-0.73	
900	17.02	0.12	17.08	0.18	17.02	0.12	16.51	-0.99	
800	17.24	0.04	17.31	0.11	17.24	0.04	17.21	-0.69	
700	17.31	-0.49	17.39	-0.41	17.31	-0.49	17.91	-0.49	
600	17.27	-0.93	17.35	-0.85	17.26	-0.94	18.22	-0.48	
500	17.22	-1.58	17.29	-1.51	17.21	-1.59	18.29	-0.71	
400	17.09	-1.91	17.16	-1.84	17.69	-1.91	18.27	-1.13	
300	16.99	-1.91	17.03	-1.87	16.99	-1.91	18.25	-0.95	
200	16.83	-1.77	16.86	-1.74	10.82	-1.78	18.06	-0.84	
100	16.71	-1.79	16.72	-1.70	16.70	-1.80	16.30	-1.70	
32	10.62	-2.18	16.63	-2.17	16.62	-2.18	15.76	-1.64	
8	16.83	-2.67	16.83	-2.67	16.83	-2.67	14.54	-2.56	
2	17.59	-2.31	17.61	-2.29	17.61	-2.29	12.90	-5.70	
0	18.22	XXXX	18.22	XXXX	18.23	XXXX	11.23	*XXX	
VAPOR PRESSURE (Mb)									
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	
1000	6.85	0.04	6.84	0.63	6.84	0.03	6.59	1.94	
900	7-31	0.25	7.32	0.26	7.31	0.25	6.90	1.74	
800	7.61	0.29	7.55	0.27	7.58	0.26	7.24	1.56	
700	7.84	0.26	7.85	0.27	7.83	0.25	7.02	1.19	
600	8.03	0.18	8.03	0.18	8 c C 3	0-18	7.85	0.79	
500	8.26	0.12	8.23	0.09	8.24	0.10	8.24	0.66	
400 .	8.43	0.0	8.39	-0.04	8.41	-0.02	8.61	0.47	
306	8-65	0.05	8 - 62	0.02	8.65	0.05	8.99	0.80	
200	8.90	0.23	8.85	0.18	8.90	0.23	9.26	1.68	
100	9.29	0.56	9.23	0.50	9.28	0.55	8.93	2.41	
32	9.85	4.26	9.80	4.21	9.84	4.25	7.60	2.08	
8	10.62	5.03	10.59	5.00	10.62	5.03	7.85	2.01	
2	12.52	12.52	12.52	12.52	12.53	12.53	9.77	9.77	
0	14.0៩	XXXX	14.04	XXXX	14.07	XXXX	11.74	XXXX	

TAPE NO. Interval		91.0 2HR	192.0 194.0 2HR 2HR			196. 1HR						
		SOI	L TEMP	ERATURE	(DEG C							
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF				
-0.0	8.26	-14.24	8.25	-14.25	8.26	-14.24	1.94	-4.85				
-0.125	21.47	-0.75	21.46	-0.76	21.47	-0.75		-0.97				
-0.250	25.38	1.49	25.39	1.50	25.40	1.51	25.62	0.90				
-0.500	24.61	1.44		1.44			24.64	0.81				
		1.46				1.46	20.84					
-2.000	20.68	1.46		1.45	20.67	1.45	20.68	0.90				
	WIND SPEED (M/SEC)											
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF				
8					4.86			0.79				
2	2.03		2.24		2.17							
	5	SURFACE	ENERGY	TERMS	(LY/5EC)	X1000						
PARAMETE	R GPAL	DIFF	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF				
S(D)	11.90	-0.00	11.89	-0.01	11.90	0.00	6.62	0.02				
R(N)	6-21	XXXX	6.22	XXXX	6.21	XXXX		XXXX				
Q(C,0)	0.56	XXXX	0.55	XXXX	0.56	XXXX	-0.25	XXXX				
Q(E.O)	2.80	XXXX	2.80	XXXX	2.79	XXXX	0.63	XXXX				
	2.86	XXXX	2.86	XXXX	2 • 86	XXXX	2.66	XXXX				
	SUI	RFACE SH	EAR ST	RESS (D	YNES/CM	SQ1 x 10						
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF				
IAU	5.32	XXXX	6.02	XXXX	5.74	XXXX	r.82	XXXX				
	INTEG	RATED EV	APOTRAI	NSPIRAT	ICN (GM/	CM SC)X	100					
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF				
E	1.60	XXXX	1.60	XXXX		XXXX	0.0	XXXX				

KICM SCA TAPE NU. INTERVAL	. 19	114 7-0 HR	19	094 8.0 HR	19	029 9.0 HR	20	024 0.0 HR
		ı	U COMPON	ENT (M	/SEC!			
LEVEL(M. GED 1000 900 800 700 600 500 400 300 200	-10.00 -5.64 -5.05 -5.12 -5.24 -5.26 -5.31 -5.39 -5.43 -4.80	0.04 -4.71 -3.93 -3.80 -3.71 -3.35 -3.02 -2.72 -3.10 -4.02	-5.69 -5.69 -5.68 -5.67 -5.67 -5.65 -4.95	D1FF 0.03 -4.76 -4.57 -4.37 -4.16 -3.77 -3.38 -2.99 -3.32 -4.17	GPAC -8.95 -4.96 -5.03 -5.10 -5.23 -5.25 -5.31 -5.37 -5.41 -4.78	DIFF 1.09 -4.03 -3.91 -3.76 -3.70 -3.34 -3.02 -2.70 -3.09 -4.00	GPAC -8.95 -5.54 -5.04 -5.10 -5.22 -5.26 -5.31 -5.37 -5.42 -4.78	DIFF 1.09 -4.61 -3.92 -3.78 -3.59 -3.35 -3.02 -2.70 -3.09 -4.00
100 32 8	-2.39 1.92 3.29	-1.61 -1.31 0.60	-2.47 1.91 3.29	-1.69 -1.32 0.60	-2.39 1.43 3.30	-1.61 -1.30 0.61	-2.39 1.93 3.30	-1.61 -1.30 0.61
		١	/ COMPONI	ENT (M)	(SEC)			
LEVEL (M)	GPAC 1.77*	D1FF 3.54	GPAC 1.77*	01FF 3.54	GPAC 1 <b>83</b> *	01FF 3.60	GPAC 1.83*	01FF 3.60
1000 900 800	-0.81 -1.51 -1.68	1.02 0.22	-2.55 -2.51	-0.72 -0.78	-1.22 -1.34	0.61	-0.65 -1.33	1.18
700 600	-1.88 $-1.96$	-0.10 -0.50 -0.24	-2.51 -2.48 -2.46	-0.93 -1.11 -0.74	-1.51 -1.70 -1.79	0.07 -0.33 -0.07	-1.51 -1.70 -1.79	0.07 -0.32 -0.07
500 400 300	-2.03 -2.11 -2.57	0.03 0.30 -0.54	-2.45 -2.45 -2.82	-0.38 -0.05 -0.79	-1.67 -1.95 -2.39	0.20 0.46 -0.36	-1.85 -1.94 -2.39	0.22 0.47 -0.36
200 100 32	-5.41 -5.32 -3.01	-4.73 -4.64 -1.96	-5.57 -5.41 -3.01	-4.89 -4.73 -1.96	-5.22 -5.14 -2.82	-4.54 -4.46 -1.77	-5.22 -5.14 -2.82	-4.54 -4.46 -1.78
8	-1.16	-0.88	-1.16	-0.88	-0.99	-0.71	-0.99	-0.71

# ALR TEMPERATURE AND VAPOR PRESSURE

TAPE NO. Interval	197.0 1HR		198.0 1HR		199.0 1HR		200.0 1HR	
		AIR	TEMPE	RATURE	(DEG L)			
	CDAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
TEAFT( W)	GPAC	-0.73	15.98	-0.72	15.97	-0.73	15.97	-0.73
1000	15.97	-0.98	16.53	-0.97	16.51	-0.99	16.52	-0.98
900	16.52	-0.71	17.21	-0.69	17.19	-0.71	17-20	-0.70
800	17.19	-0.49	17.93	-0.47	17.91	-0.49	17.91	-0.49
700	17.91	-0.47	18.26	-0.44	18.22	-0.48	18.22	-0.48
600	18.23	-0.71	18.33	-0.67	18.30	-0.70	18.30	-0-70
500	18.29	-1.14	18.31	-1.09	18.27	-1.13	18.27	-1-13
400	18.26	-0.94	18.30	-0.90	18.26	-0.94	18.26	-0.94
300	18.26	-0.84	18.09	-0.81	18.05	-0.85	18.05	-0.85
200	18.06	-1.71	16.32	-1.68	16.29	-1.71	16.31	-1.69
100	16.29	-1.64	15.77	-1.63	15.75	-1.65	15.75	-1-65
32	15.76	-2.56	14.54	-2.56	14.53	-2.57	14.54	-2.56
8	14.54	-5.70	12.90	-5.70	12.91	-5.69	12.93	-5.67
2	12.90	XXXX	11.22	XXXX	11.25	XXXX	11.29	XXXX
0	11.23	^^^	1	•••••	• -			
			VAPOR P	RESSURE	(MB)			
						0155	GPAC	DIFF
LEVELINA	GPAC	DIFF	GPAC	DIFF	GP AC	DIFF	_	1.96
1000	6.61	1.96	6.59	1.94	6.61	1.96	6.61 6.91	1.75
900	6.91	1.75	6.90	1.74	6.90	1.74	7.24	1.56
800	7.24	1.56	7.24	1.50	7.23	1.55		1.19
700	7.62	1.19	7.62	1.19	7.63	1.20	7.62	0.78
600	7.84	0.78	7.86	0.80	7-85	0.79	7.84	0.16
500	8.24	0.66	8.24	0.66	8-24	0.66	8.24	0.48
400	8.61	0.47	8.61	0.47	8.61	0.47	8.62	0.77
300	8.96	0.77	8.97	0.78	8.99	0.80	8.96	1.68
200	9.26	1.68	9.26	1-68	9.26	1.68	9,26	2.41
100	8.94	2.42	8.93	2.41	8.93	2.41	8.93	2.09
32	7.60	2.08	7.61	2.09	7.61	2.09	7.61	2.01
8	7.84	2.00	7.85	2.01	7.85	2.01	7.85	9.83
2	9.76	9.76	9.77		9.81	9.81	9.83	XXXX
ō	11.73		11-74	XXXX	11.81	XXXX	11.85	~^^
-								

TAPE NU.		7.0 .HR	_	98.0 1HR	199.0 1HR		200.0 1HR				
		SUL	L TEMP	ERATURE	(DEG C)						
LEVEL(M)	GPAC	DIFF	GPAC	Oler	GPAC	DIFF	GPAC	DIFF			
-0.0	1.93	-4.86	1.93	-4.86	1.94	-4.85	1.94	-4.85			
-0.125	22.53	-0.97	22.53	-0.97	22.53	-0.97	22.53	-0.97			
-0.250	25.6l	0.89	25-61	0.89	25.62	0.90	25.61	0.89			
-0.500	24.63	0.80	24.63	0.80	24.62	0.79	24.63	0-80			
-1-000	20.84	0.84	20.84	0-84	20.83	0.83	20.84	0.84			
-2.000	20.67	0.89	20-67	0.89	20.68	0.90	20.67	0.89			
	WIND SPEED (M/SEC)										
TEAFT(W)	GPAC	OIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF			
8	3.49	0.79	3-49	0.79	3.45	0.75	3.44	0.74			
2	1.77	-0.13	1.76	-0-14	1.74	-0.16	1.74	-0.16			
	S	URFACE	ENERGY	TERMS	(LY/SEC)	X1000					
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
S(D)	6.66	0.06	6.65	0.05	6.64	0.04	6.65	0.05			
R(N)	3 - 04	XXXX	3-02	XXXX	3.02	XXXX	3.03	XXXX			
010,01		XXXX	-0-25	XXXX		XXXX	-0.24	XXXX			
0(E,0)	0.63	XXXX	0.62	XXXX	0.60	XXXX	0.61	XXXX			
015.01		XXXX	2.67	XXXX	2.67	XXXX	2.67	XXXX			
	SUR	FACE SE	EAR ST	RESS (D	YNES/CM	501X10					
PARAMETE	R GPAC	DIFF	Ĝ₽∵	DIFF	GPAC	DIFF	GPAC	DIFF			
TAU	0-82	XXXX	., 2	XXXX		XXXX	0.72	XXXX			
	INTEGR	ATED E	/APGTRAI	NSPIRAT	18N (GM/	CM SQLX	100				
PARAMETE	R GPAC	DIFF	GPAC	0 1 FF	GPAC	DIFF	GPAC	DIFF			
E	0-10	XXXX	0.0	XXXX	0.0	XXXX	0.10	XXXX			

# VELOCITY CUMPUNENTS

KICH SO/	SEC) 1	014	1	024	7	494	7	509
TAPE NU.	20	1.0	20	2.0	20	3.0		4.0
INTERVAL	1	HR		HR		HR		HR
			_		_			• • • •
		U	COMPON	ENT (M/	SECI			
LEVEL(M)	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF	GPAC	DIFF
GEO	-8.95	1.09	-8.95	1.09	-8.95	1.09	-8.95	1.09
1000	-6-19	-5.26	-5.67	-4.74	-5.67	-4.74	-5.51	-4.58
900	-5.68	-4.56	-5.68	-4.56	-5.67	-4.55	-5.08	-3.96
800	-5.67	-4.35	-5.67	-4-35	-5.67	-4.35	-5.14	-3.82
700	-5.68	-4-15	-5.68	-4.15	-5.66	-4.13	-5.20	-3.68
600	-5.67	-3.76	-5.67	-3.76	-5.61	-3.70	-5.21	-3.30
500	-5.66	-3.37	-5.66	-3.37	-5.47	-3.18	-5.14	-2.85
400	-5 <b>.6</b> 6	-2.98	-5.66	-2.98	-5.20	-2.53	-4.93	-2.26
300	-5.63	-3.30	-5.63	-3.30	-4.72	-2.39	-4.50	-2.17
200	-4.94	-4.16	-4.94	-4.16	-3.96	-3.18	-3.80	-3.02
100	-2-47	-1.69	-2.47	-1.69	-2.81	-2.03	-2.71	-1.93
32	1.92	-1.31	1.92	-1.31	-1.71*	-4.94	-1.65*	-4.88
8	3.29	0.60	3.29	0.60	-1.20*	-3.89	-1.15*	-3.84
		1.2	COMEON	CNT /M/	CECI			
		٧	COMPON	ENA IMY	2EC1			
TEAFT(W)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
GEO	1.83*	3.60	1.83*	3-60	1.83*	3.60	1.83*	3.60
1000	-1.72	0.11	-2.37	-0.54	-2.36	-0.53	-0.69	1.14
900	-2.33	-0.60	-2.33	-0.60	-2.33	-0.60	-1.33	0.40
800	-2.32	-0.74	-2.32	-0.74	-2.32	-0.74	-1.54	0.04
700	-2.30	-0.93	-2.3C	-0.93	-2.34	-0.97	-1.73	-0.35
600	-2.28	-0.57	-2.28	-0.57	-2.43	-0.71	-1.94	-0.22
500	-2-26	-0.19	-2.26	-0.19	-2.62	-0.56	-2.21	-0.14
400	-2-27	0.14	-2.26	0.15	-2.95	-0.55	-2-61	-0.20
300	-2-64	-0.61	-2.64	-0.61	-3.33	-1.30	-3.08	-1.05
200	-5.39	-4.71	-5.39	-4.71	-3.70	-3.02	-3.53	-2.85
100	-5.22	-4.54	-5.22	-4.54	-3.84	-3.16	-3.73	-3.05
32	-2.82	-1.78	-2.83	-1.78	-3.53	-2.48	-3.47	-2.42
8	-0.99	-0.71	-0.99	-0.71	-2.93	-2.65	-2.90	-2.62

#### AIR TEMPERATURE AND VAPOR PRESSURE

TAPE NU.		01.0 LHR	202.0 1HR		203+0 1HR		204.0 1HR	
		AI	R TEMPE	KATURE	IDEG C1			
LEVEL(M)	GPAL	DIFF	GP A C	DIFF	GPAC	DIFF	LPAC	DIFF
1000	15.98	-0.72	15.98	-0.72	16.09	-0.61	16.08	-0.62
900	16.53	-0.97	16.53	-0.97	16.82	-0.68	16.81	-0.69
800	17.22	-0.68	17.22	-0.68	17.41	-0.49	17.39	-0.51
700	17.92	-0.48	17.92	-0.48	17.81	-0.59	17.79	-0.61
600	18.26	-0.44	18.25	-0.45	17.98	-0.72	17.95	-0.75
500	18.33	-0.67	18.33	-0.67	18.04	-0.96	18.02	-0.98
400	18.31	-1.09	18.31	-1.09	17.45	-1.45	17.92	-1.48
300	18.30	-0.90	18.31	-0.89	17.77	-1.43	17.75	-1.45
200	18.09	-0.81	18.09	-0.81	17.47	-1.43	17.48	-1.42
100	16.33	-1.67	16.32	-1.68	17.13	-0.87	17.12	-C.88
32	15.76	-1.64	15.76	-1.64	16.79	-0.61	16.79	-0.61
8	14.54	-2.56	14.55	-2.55	16.76	-0.34	16.76	-0.34
2	12.91	-5.69	12.92	-5.68	16.99	-1.61	16.99	-1.61
o	11.25	XXXX	11.25	XXXX	17.02	XXXX	17.04	XXXX
			VAPOR P	RESSUR	(MB)			
LEVEL(M)	GPAC	DIFF	GP AC	DIFF	GP AC	DIFF	GPAC	DIFF
1000	0.01	1.96	6.61	1.96	6.64	1.99	6.65	2.00
900	6.91	1.75	6.90	1.74	7.62	1.86	7.03	1.87
800	7.23	1.55	7.23	1.55	7.37	1.69	7.38	1.70
700	7.63	1-20	7.63	1.20	7.72	1.29	7.71	1.28
600	7.85	0.79	7.85	0.79	7.99	0.93	8.01	0.95
500	8.25	0.67	8.25	0.67	8.28	0.70	8.27	0.69
400	8.62	0.48	8.61	0.47	8.47	0.33	8.48	0.34
300	8.99	0.80	8.97	0.78	8.69	0.50	8.69	0,50
200	9.20	1.68	9.27	1.69	8.84	1.26	8.85	1.27
100	8.94	2.42	8.93	2.41	9.12	2.60	9.14	2.62
32	7.60	2.08	7.61	2.09	9.57	4.05	9.58	4.06
8	7.80	2.02	7.85	2.01	10.19	4.35	10.20	4.36
2	9.83	9.83	9.83	9.83	12.33	12.33	12.25	12.25
O	11.85	XXXX	11.84	XXXX	12.65	XXXX	12.68	XXXX

TAPE NU. INTERVAL		1.0 HR	202+0 1HR		203.0 1HR		264.0 1HR				
		201	IL TEMPI	RATURE	(DEG C)						
TEAET(W)	GPAC	UIFF	GPAC	DIFF	GPAL	DIFF	GPAL	DIFF			
-0.0	1.94	-4.85			16.42	11.63	18-43	11.64			
-0.125	22.53	-0.97	22.52	-0.98	24.02	0.52	24.02	0.52			
-0.250	25.61	0.89	25.62	0.90	25.60	0.94	25.60	U-94			
-0.500	24.62	0.79	24.03	0.80	24.63	0.80	24.63	0.80			
-1.000	20.83	0.83	20.84	0.84	10.84	0.84	20.85	0.85			
-2.000	20.68	0.90	20.69	0.91	24.44		24-43	4-65			
WIND SPEED (M/SEL)											
LEVEL(M)	GPAC	0166	GP A C	DIFF	GPAC	DIFF	GPAC	DIFF			
8			3.44			0.47		0.43			
2	1.74		1.74								
	S	UKFACE	ENERGY	TERMS	(LY/SEC)	X1000					
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GP AC	DIFF	GPAL	DIFF			
S(D)	6.64	0.04	6.65	0.05	6.65	0.05	6.66	0.05			
RINI	3.02	XXXX	3.03	XXXX	2.48	XXXX	2.49	XXXX			
0((,0)	-0.23	XXXX	-0-24	XXXX	0-14	XXXX	0.14	XXXX			
U(E,0)	0.59	XXXX	0.59	XXXX	2.75	XXXX	2-74	XXXX			
0(5,0)	2.67	XXXX	2.67	XXXX	-0 c 40	XXXX	-0.40	XXXX			
	2UR	FALE SI	HEAR STR	ESS (D	YNES/CM	201 X 10					
PARAMETE	R GPAL	DIFF	GPAC	DIFF	GPAC	<b>1110</b>	GPAC	DIFF			
TAU	0.72	XXXX	0.74	XXXX	5.14	XXXX	5.06	XXXX			
	INTEGR	VAIED E	APOTRAN	ISPIRAT.	ION (GM/	CH SQ1X	100				
PARAMETE	R GPAL	DIFF	GPAL	DIFF	GPAC	DIFF	GPAL	DIFF			
E	0.10	XXXX	0.10	XXXX	0.90	XXXX	0.90	XXXX			

# VELOCITY COMPONENTS

KLUM SWISED	7454	5454	5444	5444
TAPE NU.	205.0	206.0	207.0	208.0
INTERV AL	11-R	1HR	1HR	1HR

#### U CUMPINENT (M/SEC)

LEVEL(M)	GPAL	ulff	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
<b>G</b> E J	-8.95	1.05	-10.01	0.03	-16.61	0.03	-10.01	0.03
1000	-4-96	-4.03	-4.98	-4.05	-0.24	-5.31	-5.69	-4.76
900	-5.05	-3.93	5 • C6	-3.94	-5.72	-4.60	-5.68	-4.56
800	-5-14	-3.82	-5.14	-3.62	-5.67	-4.35	-5.66	-4.35
700	-5.20	-3.67	-5.14	-3.61	-5.60	-4.07	-5.60	-4.07
600	-5.21	-3.30	-5.08	-3.17	-5.47	~3.56	-5.47	-3.56
500	-5.13	-2.84	-4.91	-2.62	-5.24	-2.95	-5.25	-2.96
400	-4.43	-2.26	-4.65	-1.98	-4.93	-2.25	-4.92	-2.24
300	-4.51	-2.18	-4.2?	-1.94	-4.49	-2.16	-4.49	-2.16
200	-3.81	-3.03	-3.77	-2.99	-3.94	-3.16	-3.93	-3.15
100	-2.71	-1.93	-3.11	-2.33	-3.21	-2.43	-3.22	-2.44
32	-1.65*	-4.88	-2.44*		-2.51*	-5.74	-2.51*	-5.74
8	-1.16*	-3.85	-1.93*	-4.62	-1.57*	-4.66	-1.97*	-4.66

#### V COMPONENT (M/SEC)

FFAFF(W)	GPAL	UIFF	GP AL	DIFF	GPAC	DIFF	GPAC	DIFF
GEU	1.03*	3.60	1.77*	3.54	1.77*	3.54	1.77*	3.54
1000	-1 - 22	0.01	-1.41	0.41	-1.54	-0.11	-2.54	-0.71
900	-1.37	0.35	-1.57	G.15	-2.46	-0.73	-2.51	-0.78
800	- 1.55	0.03	-1.78	-0.20	-2.53	-0.95	-2.54	0.96
700	-1.73	-0.36	-2.01	-0.63	-2.61	-1.24	-2.61	-1-24
600	-1.94	-0.22	-2.28	-0.56	-4.76	-1.05	-2.76	-1.05
500	-2-21	-0.14	-2.50	-0.49	-2.95	-0.89	-2.96	-0.89
400	-2.01	-0.20	-2.86	-0.45	-3.19	-0.78	-3-19	-0.78
<b>3</b> 00	-3.08	-1.05	-3.16	-1.14	-3.42	-1.39	-3.42	-1.39
∠00	-3.53	-2.85	-3.43	-2.75	-3.61	-2.93	-3.62	-2-94
100	3.73	-3.05	-3.56	-2.88	-3.68	~3.00	-3.68	-3.00
32	-3.46	-2.41	-3.38	-2.33	-3.40	-2.41	-1.45	-2.41
ช	-2.09	-2.61	-2.86	-2-58	-2.91	-2.63	-2-91	-2.63

# ALR TEMPERATURE AND VAPOR PRESSURE

LEVEL(M) GPAC DIFF GPAC DIFF GPAC DIFF GPAC DIFF 1000 10.08 -0.62 16.17 -0.53 16.15 -0.51 16.19 -0.51 900 16.81 -0.65 16.96 -0.54 16.99 -0.51 16.99 -0.51 800 17.39 -0.51 17.42 -0.48 17.45 -0.45 17.45 -0.45 17.45 -0.45 17.45 -0.45 17.45 -0.45 17.47 -0.69 600 17.94 -0.76 17.77 -0.93 17.81 -0.89 17.81 -0.89 500 18.02 -0.98 17.81 -1.19 17.83 -1.17 17.83 -1.16 17.92 -1.48 17.72 -1.68 17.74 -1.60 17.73 -1.67 300 17.75 -1.45 17.59 -1.61 17.49 -0.81 17.19 -0.81 17.22 -1.38 17.23 11.40 17.22 11.38 17.23 11.40 17.22 11.38 17.23 11.40 17.22 11.38 17.23 11.40 17.22 11.38 11.40 17.22 11.3	TAPE NU. INTERVAL		205.U 1HR		5.0 207 HR 1F			208 1H	
LEVEL(M) GPAC DIFF GPAC DI			AIR	TEMPER	RATURE (	DEC C)			
1000 10-08 -0.62 16-17 -0.53 10-19 -0.51 16-19 -0.51 1000 16-81 -0.69 16-96 -0.54 16-99 -0.51 16-99 -0.51 16-99 -0.51 16-99 -0.51 17-42 -0.48 17-45 -0.45 17-45 -0.45 17-45 -0.45 17-45 -0.45 17-45 -0.45 17-45 -0.45 17-45 -0.68 17-71 -0.69 17-79 -0.61 17-68 -0.72 17-72 -0.68 17-71 -0.69 17-94 -0.76 17-77 -0.93 17-81 -0.89 17-82 -1.67 17-83 -1.67 17-83 -1.67 17-83 -1.67 17-85 17-73 -1.67 17-85 17-73 -1.67 17-85 17-73 -1.67 17-85 17-73 -1.67 17-85 17-73 -1.67 17-85 17-73 -1.67 17-85 17		2010	DIFF	GPAC	DIFF	6P AL	DIFF		
900 16.81 -0.65 16.96 -0.54 16.99 -0.51 16.99 -0.51 800 17.39 -0.51 17.42 -0.48 17.45 -0.45 17.45 -0.45 17.45 -0.45 17.47 -0.69 17.77 -0.68 17.71 -0.69 17.79 -0.61 17.68 -0.72 17.72 -0.68 17.71 -0.69 600 17.94 -0.76 17.77 -0.93 17.81 -0.89 17.81 -0.89 17.81 -0.89 17.81 -0.89 17.81 -0.89 17.92 -1.48 17.72 -1.68 17.74 -1.66 17.73 -1.67 17.92 -1.48 17.72 -1.68 17.74 -1.66 17.73 -1.67 17.59 -1.61 17.60 -1.50 17.41 -1.49 17.40 -1.50 17.40 17.10				-			-0.51		
800 17-39 -0.51 17.42 -0.48 17.45 -0.45 17.45 -0.45 17.71 -0.69 17.77 -0.61 17.68 -0.72 17.72 -0.68 17.71 -0.69 17.77 -0.61 17.77 -0.93 17.81 -0.89 17.81 -0.89 17.81 -0.89 17.81 -0.89 17.81 -0.89 17.81 -0.89 17.81 -0.89 17.81 -0.89 17.81 -0.98 17.81 -0.89 17.81 -0.89 17.81 -0.98 17.81 -0.89 17.81 -0.89 17.81 -0.98 17.81 -0.89 17.81 -0.89 17.81 -0.98 17.81 -0.89 17.81 -0.88 17.72 -0.98 17.82 -1.66 17.73 -1.67 17.83 -1.17 17.83 -1.17 17.83 -1.17 17.83 -1.17 17.83 -1.17 17.83 -1.17 17.83 -1.17 17.83 -1.17 17.83 -1.17 17.59 -1.61 17.70 -1.60 17.75 -1.61 17.70 -1.60 17.75 -1.61 17.70 -1.50 17.41 -1.49 17.70 -1.50 17.41 -1.49 17.70 -1.50 17.41 -1.49 17.70 -0.81 17.19 17.19 17								16.99	
700 17-79 -0.61 17-68 -0.72 17-72 -0.68 17-71 -0.69 600 17-94 -0.76 17-77 -0.93 17-81 -0.89 17-81 -0.89 500 18-02 -0.98 17-81 -1.19 17-83 -1.17 17-85 -1.67 17-9 -1.68 17-72 -1.68 17-74 -1.66 17-73 -1.67 17-16 17-80 17-81 17-89 -1.61 17-89 -1.61 17-89 17-80 17-81 17-89 17-81 17-89 17-81 17-89 17-81 17-89 17-81 17-89 17-81 1						17.45	-0.45		
17-94 -0.76 17.77 -0.93 17.81 -0.89 17.81 -0.89  500 18.02 -0.98 17.81 -1.19 17.83 -1.17 17.83 -1.67  400 17.92 -1.48 17.72 -1.68 17.74 -1.60 17.73 -1.67  300 17.75 -1.45 17.59 -1.61 17.80 -1.50 17.41 -1.49  200 17.47 -1.43 17.41 -1.49 17.80 -1.50 17.41 -1.49  100 17.12 -0.88 17.19 -0.61 17.19 -0.21 17.19 -0.81  32 16.79 -0.61 16.96 -0.44 16.94 -0.46 16.95 -0.45  8 16.76 -0.34 16.96 -0.14 16.95 -0.15 15.95 -0.15  2 16.96 -1.64 17.22 -1.38 17.2) -1.40 17.22 -1.38  0 17.02 XXXX 17.36 XXXX 17.32 XXXX 17.35 XXXX  VAPOR PRESSURE (AB)  LEVEL(MI GPAC DIFF G						17.72	-0.68		
500						17.81	⊹ ଅ. 89		
400 17.92 -1.48 17.72 -1.68 17.74 -1.66 17.73 -1.67 300 17.75 -1.45 17.59 -1.61 17.60 -1.00 17.59 -1.61 200 17.47 -1.43 17.41 -1.49 17.40 -1.50 17.41 -1.49 100 17.12 -0.88 17.19 -0.61 17.19 -0.81 17.19 -0.81 32 16.79 -0.61 16.96 -0.44 16.94 -0.46 16.95 -0.45 8 16.76 -0.34 16.96 -0.14 16.95 -0.15 18.95 -0.15 2 16.96 -1.64 17.22 -1.38 17.2) -1.40 17.22 -1.38 0 17.02 XXXX 17.36 XXXX 17.32 XXXX 17.35 XXXX  VAPOR PRESSURE (Ma)  LEVEL(M) GPAC DIFF GPAC DIFF GPAC DIFF GPAC DIFF GPAC 0.66 1.99 6.68 2.03 6.70 2.05 6.67 2.02 900 7.02 1.86 7.11 1.95 7.11 1.95 7.12 1.96 900 7.37 1.69 7.45 1.77 7.45 1.77 7.45 1.77 700 7.37 1.69 7.45 1.77 7.45 1.77 7.45 1.77 700 7.71 1.28 7.76 1.33 7.76 1.33 7.77 1.34 600 7.99 0.93 8.01 0.95 8.01 0.95 8.01 0.95 500 8.27 0.69 8.25 0.67 8.24 0.66 8.24 0.66 400 8.46 0.34 8.43 0.29 8.42 0.28 8.42 0.28 300 8.66 0.49 8.65 0.46 8.63 0.44 8.64 0.45 200 8.80 0.49 8.65 0.46 8.63 0.44 8.64 0.45 200 8.80 1.28 8.87 1.29 8.85 1.27 8.85 1.27 100 9.14 2.62 9.22 2.70 9.21 2.69 9.19 2.67 100 9.14 2.62 9.22 2.70 9.21 2.69 9.19 2.67							-1.17		
300 17-75 -1-45 17-59 -1-61 17-80 -1-80 17-59 -1-61 200 17-47 -1-43 17-41 -1-49 17-70 -1-50 17-41 -1-49 100 17-12 -0-88 17-19 -0-81 17-19 -0-81 17-19 -0-81 32 16-79 -0-61 16-96 -0-44 16-94 -0-46 16-95 -0-45 8 16-76 -0-34 16-96 -0-14 16-95 -0-15 15-95 -0-15 2 16-96 -1-64 17-22 -1-38 17-20 -1-40 17-22 -1-38 0 17-02 XXXX 17-36 XXXX 17-32 XXXX 17-35 XXXX 17-35 XXXX 17-02 XXXX 17-36 XXXX 17-32 XXXX 17-35 XXXX 17-35 XXXX 17-37 1-96 1000 6-64 1-99 6-68 2-03 6-70 2-05 6-67 2-02 1000 7-02 1-86 7-11 1-95 7-11 1-95 7-12 1-96 1000 7-37 1-69 1-45 1-77 7						17.74	~1,66		
200 17-47 -1-43 17-41 -1-49 17-40 -1-50 17-41 -1-49 100 17-12 -0-88 17-19 -0-81 17.19 -0-85 16.35 -0-85 16.36 16.36 -0-84 16.36 -0-84 16.36 -0-84 16.36 -0-84 16.36 -0-84 17.20 -1-38 17.20 -1-40 17.22 -1-38 17.20 -1-40 17.22 -1-38 0 17-02 XXXX 17-36 XXXX 17-32 XXXX 17-35 XXXX 17						17.00	-1.00	17.55	
100 17-12 -0.88 17-19 -0.81 17.19 -0.91 17.19 -0.81 17.19 -0.81 17.19 -0.45 32 16.79 -0.61 16.96 -0.44 16.94 -0.46 36.95 -0.45 8 16.76 -0.34 16.96 -0.14 16.95 -0.15 16.95 -0.15 2 16.96 -1.64 17.22 -1.38 17.2) -1.40 17.22 -1.38 0 17-02 XXXX 17.36 XXXX 17.32 XXXX 17.35 XXXX 17				-			-1.50	17.41	
32 16.79 -0.61 16.96 -0.44 16.94 -0.46 16.95 -0.45 8 16.76 -0.34 16.96 -0.14 16.95 -0.15 15.95 -0.15 2 16.96 -1.64 17.22 -1.38 17.2) -1.40 17.22 -1.38 0 17.02 XXXX 17.36 XXXX 17.33 XXXX 17.35 XXXX  VAPOR PRESSURE (Ma)  VAXX VAXX VAXX VAXX VAXX VAXX VAXX VAX							-0. 21		
8 16.76 -0.34 16.96 -0.14 16.95 -0.15 15.95 -0.15 2 16.96 -1.64 17.22 -1.38 17.2) -1.40 17.22 -1.38 0 17.02 XXXX 17.36 XXXX 17.32 XXXX 17.35 XXXX  VAPOR PRESSURE (Ma)  VAXX 17.32  VAX							O-45		
2 16.96 -1.64 17.22 -1.38 17.2) -1.40 17.22 -1.38			-				-0.15	15, 95	
VAPOR PRESSURE (MB)  LEVEL(M) GPAC DIFF GPAC DIFF GPAC DIFF GPAC 1000 6.64 1.99 6.68 2.03 6.70 2.05 6.67 2.02 9.00 7.02 1.86 7.11 1.95 7.11 1.95 7.12 1.96 8.00 7.37 1.69 7.45 1.77 7.45 1.77 7.45 1.77 7.45 1.77 7.00 7.71 1.28 7.76 1.33 7.76 1.33 7.77 1.34 6.00 7.99 0.93 8.01 0.95 8.01 0.95 8.01 0.95 8.00 8.27 0.69 8.25 0.67 8.24 0.66 8.24 0.66 8.24 0.66 8.24 0.66 8.24 0.66 8.24 0.66 8.24 0.66 8.24 0.66 8.24 0.66 8.24 0.66 8.24 0.66 8.24 0.28 8.46 0.34 8.43 0.29 8.42 0.28 8.42 0.28 3.00 8.66 0.49 8.65 0.46 8.63 0.44 8.64 0.45 3.00 8.68 0.49 8.65 0.46 8.63 0.44 8.64 0.45 3.00 8.68 0.49 8.65 0.46 8.63 0.44 8.64 0.45 3.00 8.68 0.49 8.65 0.46 8.63 0.44 8.64 0.45 3.00 8.88 1.28 8.87 1.29 8.85 1.27 8.85 1.27 3.00 9.14 2.62 9.22 2.70 9.21 2.69 9.19 2.67 3.00 9.14 2.62 9.22 2.70 9.21 2.69 9.19 2.67 3.00 9.14 2.62 9.22 2.70 9.21 2.69 9.19 2.67 3.00 9.14 2.62 9.22 2.70 9.21 2.69 9.19 2.67 3.00 9.14 2.62 9.22 2.70 9.21 2.69 9.19 2.67 3.00 9.18 4.06 9.73 4.21 9.71 4.19 9.72 4.20						17.20	-1.40	17.22	
VAPOR PRESSURE (Ma)  LEVEL(M) GPAC DIFF GPAC DIFF GPAC DIFF GPAC DIFF 1000 6.64 1.99 6.68 2.03 6.70 2.05 6.67 2.02 900 7.02 1.86 7.11 1.95 7.11 1.95 7.12 1.96 800 7.37 1.69 1.45 1.77 7.45 1.77 7.45 1.77 7.45 1.77 700 7.71 1.28 7.76 1.33 7.76 1.33 7.77 1.34 1.28 7.76 1.33 7.76 1.33 7.77 1.34 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09			_				XXXX	17.35	XXXX
LEVEL(M) GPAC DIFF GPAC DIFF GPAC DIFF GPAC DIFF 1000 6.64 1.99 6.68 2.03 6.70 2.05 6.67 2.02 900 7.02 1.86 7.11 1.95 7.11 1.95 7.12 1.96 800 7.37 1.69 7.45 1.77 7.45 1.77 7.45 1.77 7.45 1.77 7.45 1.77 7.45 1.77 7.45 1.77 7.45 1.09 1.00 7.71 1.28 7.76 1.33 7.76 1.33 7.77 1.34 600 7.99 0.93 6.01 0.95 8.01 0.95 8.01 0.95 8.01 0.95 8.00 8.27 0.69 8.25 0.67 8.24 0.66 8.24 0.66 8.24 0.66 8.24 0.66 8.24 0.66 8.24 0.66 8.24 0.66 8.24 0.66 8.24 0.28 8.45 0.29 8.45 0.28 8.42 0.28 8.42 0.28 8.45 0.29 8.45 0.28 8.42 0.28 8.45 0.44 8.64 0.45 1.00 8.46 0.49 8.65 0.46 8.63 0.44 8.64 0.45 1.00 8.46 0.49 8.65 0.46 8.63 0.44 8.64 0.45 1.00 8.46 0.49 8.65 0.46 8.63 0.44 8.64 0.45 1.00 8.46 0.49 8.65 0.46 8.63 0.44 8.64 0.45 1.00 8.46 0.49 8.65 0.46 8.63 0.44 8.64 0.45 1.00 8.46 0.49 8.65 0.46 8.63 0.44 8.64 0.45 1.00 9.14 2.62 9.22 2.70 9.21 2.69 9.19 2.67 1.00 9.14 2.62 9.22 2.70 9.21 2.69 9.19 2.67 1.00 9.14 2.62 9.22 2.70 9.21 2.69 9.19 2.67 1.00 9.14 2.62 9.22 2.70 9.21 2.69 9.19 2.67 1.00 9.14 2.62 9.22 2.70 9.21 2.69 9.19 2.67 1.00 9.14 2.62 9.22 2.70 9.21 2.69 9.19 2.67 1.00 9.14 2.62 9.22 2.70 9.21 2.69 9.19 2.67 1.00 9.14 2.62 9.22 2.70 9.21 2.69 9.19 2.67 1.00 9.58 4.06 9.73 4.21 9.71 4.19 9.72 4.20	U	17-02	^^^^	1,000	••••	_			
LEVEL(M) GPAC DIFF GPAC DI				VAPOR P	RESSURE	(88)			
1000 6.64 1.99 6.68 2.03 6.70 2.05 6.67 2.02 9.00 7.02 1.86 7.11 1.95 7.11 1.95 7.12 1.96 9.00 7.37 1.69 1.45 1.77 7.45 1.77 7.45 1.77 7.45 1.77 7.45 1.77 7.00 7.71 1.28 7.76 1.33 7.76 1.33 7.77 1.34 9.00 7.99 0.93 6.01 0.95 8	1 CVE1 / M1	GPAC	DIFF	GPAC	DIFF	GP AC			
900 7-02 1.86 7.11 1.95 7.11 1.95 7.12 1.96 800 7.37 1.69 1.45 1.77 7.45 1.77 7.45 1.77 700 7.71 1.28 7.76 1.33 7.76 1.33 7.77 1.34 600 7.99 0.93 6.01 0.95 8.01 0.95 8.01 0.95 500 8.27 0.69 8.25 0.67 8.24 0.66 8.24 0.66 500 8.46 0.34 8.43 0.29 8.42 0.28 6.42 0.28 400 8.46 0.34 8.43 0.29 8.42 0.28 6.42 0.28 300 8.68 0.49 8.65 0.46 8.63 0.44 8.64 0.45 200 8.80 1.28 8.87 1.29 8.85 1.27 8.85 1.27 100 9.14 2.62 9.22 2.70 9.21 2.69 9.19 2.67 32 9.58 4.06 9.73 4.21 9.71 4.19 9.72 4.20		_			2.03				
800 7.37 1.69 1.45 1.77 7.45 1.77 7.45 1.77 7.45 1.77 7.00 7.71 1.28 7.76 1.33 7.76 1.33 7.77 1.34 600 7.99 0.93 8.01 0.95 8.01 0.95 8.01 0.95 600 8.27 0.69 8.25 0.67 8.24 0.66 8.24 0.66 8.24 0.66 8.00 8.46 0.34 8.43 0.29 8.42 0.28 6.42 0.28 8.00 8.00 8.00 8.00 8.00 8.00 9.00 8.00 9.00 8.00 9.00 8.00 9.00 8.00 9.00 8.00 9.00 8.00 9.00 8.00 9.00 8.00 9.00 8.00 9.00 8.00 9.00 8.00 9.00 8.00 9.00 8.00 9.00 8.00 9.00 9					1.95	7.11			
700 7.71 1.28 7.76 1.33 7.76 1.33 7.17 1.34 600 7.99 0.93 £.01 0.95 8.01 0.95 8.01 0.95 500 8.27 0.69 8.25 0.67 8.24 0.66 8.24 0.66 400 8.45 0.34 8.43 0.29 8.42 0.28 8.42 0.28 300 8.68 0.49 8.65 0.46 8.63 0.44 8.64 0.45 200 8.80 1.28 8.87 1.29 8.85 1.27 8.85 1.27 100 9.14 2.62 9.22 2.70 9.21 2.69 9.19 2.67 32 9.58 4.06 9.73 4.21 9.71 4.19 9.72 4.20					1.77	7.45			
600 7.99 0.93 £.01 0.95 8.01 0.95 500 8.27 0.69 8.25 0.67 8.24 0.66 8.24 0.66 400 8.46 0.34 8.43 0.29 8.42 0.28 6.42 0.28 300 8.68 0.49 8.65 0.46 8.63 0.44 8.64 0.45 200 8.80 1.28 8.87 1.29 8.85 1.27 8.85 1.27 200 9.14 2.62 9.22 2.70 9.21 2.69 9.19 2.67 32 9.58 4.06 9.73 4.21 9.71 4.19 9.72 4.20			-		1.33	7.76	1.33		
500 8.27 0.69 8.25 0.67 8.24 0.66 8.24 0.56 400 8.46 0.34 8.43 0.29 8.42 0.28 6.42 0.28 300 8.68 0.49 8.65 0.46 8.63 0.44 8.64 0.45 200 8.80 1.28 8.87 1.29 8.85 1.27 8.85 1.27 100 9.14 2.62 9.22 2.70 9.21 2.69 9.19 2.67 32 9.58 4.06 9.73 4.21 9.71 4.19 9.72 4.20					0.95	8.Cl	0.95		•
400 8.4F, 0.34 8.43 0.29 8.42 0.28 8.42 0.28 300 8.68 0.49 8.65 0.46 8.63 0.44 8.64 0.45 200 8.80 1.28 8.87 1.29 8.85 1.27 8.85 1.27 100 9.14 2.62 9.22 2.70 9.21 2.69 9.19 2.67 32 9.58 4.06 9.73 4.21 9.71 4.19 9.72 4.20					0.67	8.24	0.66		
300 8.68 0.49 8.65 0.46 8.63 0.44 8.64 0.45 200 8.80 1.28 8.87 1.29 8.85 1.27 8.85 1.27 100 9.14 2.62 9.22 2.70 9.21 2.69 9.19 2.67 32 9.58 4.06 9.73 4.21 9.71 4.19 9.72 4.20					0.29	8.42	0.28		-
200 8.80 1.28 8.87 1.29 8.85 1.27 8.85 1.27 100 9.14 2.62 9.22 2.70 9.21 2.69 9.19 2.67 32 9.58 4.06 9.73 4.21 9.71 4.19 9.72 4.20					0.46	8.63	0.44		
100 9.14 2.62 9.22 2.70 9.21 2.69 9.19 2.67 32 9.58 4.06 9.73 4.21 9.71 4.19 9.72 4.20						8.85			
32 9.58 4.06 9.73 4.21 9.71 4.19 9.72 4.20		-				9.21			
					4.21	9.71			
10 20 4-36 10-42 4-58 10-41 4-57 10-41 4-57						10.41	4.57	10.41	4.57
3 12 12 12.12 12.50 12.50 12.50 12.50 12.50 12.50									
0 12.68 XXXX 13.59 AXXX 13.55 XXXX 13.56 XXXX						13.55	XXXX	13.55	XXXX

TAPE NO. INTERVAL	_	05-0 1HR	206.0 1HR		207.0 1HR		208.0 1HR			
		\$0	L TEMP	ERATURE	(DEG C)					
TEAFT(W)	GPAC	DIFF	GPAC	DIFF	GPAL	D156	GPAC	DIFF		
-0.0	10.42	11.63	18.22	11.43	18.22	11.43	18.21	11.42		
-0.125	24.02		24.02	0.52	24.01	0.51	24.01	0.51		
-0.250	25.66	0.94	25.66	0.94	25.66	0.94	25.66	0.94		
-0.500	24.64	0.81	24.63	0.80	24.62	0.79	24.62	0.79		
-1.000	20,85	0.85	20.84	0.84	20.84	0.84	20.84	0.84		
-2.000	24.44	4-66	24.44	4.66			24.43	4.65		
wIND SPEED (M/SEC)										
LEVEL(M)	GPAC	DIFF	ĜP A C	DIFF	GPAC	DIFF	GPAC	DIFF		
8					3.53					
2			1.19		1.18		1-18	-0.72		
		SURFACE	ENERGY	TERMS	(LY/SEC)	X1000				
PARAMETE	R GPAC	DIFF	GPAL	DIFF	GP AL	DIFF	GPAC	DIFF		
S(D)	6.65	0.05	6.65	0.05	6.63	0.03	5.60	-0.00		
RIN	2.47	XXXX	2.45	XXXX	2.45	XXXX	2.45	XXXX		
010,01	0.15	XXXX	C.15	XXXX	0.15	XXXX	0.15	XXXX		
U(E,0)	2.74	XXXX	2.54	XXXX	2.54	XXXX	2.55	XXXX		
4(5,0)	-0.40	XXXX	-0.24	XXXX	-0.25	XXXX	-0.25	XXXX		
	ŞU	RFALE SI	HEAK STE	RESS (D	YNES/CM	SQ1X10				
PARAMETE	R GPAC	DIFF	GP AC	DIFF	GPAC	DIFF	GPAC	DIFF		
JAU	5.04	XXXX	4.06	XXXX	4.18	XXXX	4.16	XXXX		
	INTEG	RATED E	APOTRA	SPIRAT	ION (GM/	CM SQLX	100			
PARAMETE	R GPAL	DIFF	GPAC	UIFF	GPAC	DIFF	GPAC	DIFF		
£	1.00	XXXX	1.20	XXXX		XXXX	1.30	XXXX		

TAPE NO.	FCST INT	SM	KM8 D8	SCG	AUV	GEÜ	REMARKS
220.	12	Α	V	F	N	ø	NONE
221.	12	A	V	F	N	1	NONE
222.	12	A	V	F	F	0	NONE
225.	12	В	٧	F	N	Û	NONE
239.	6	A	٧	F	N	U	NONE
240.	6	Δ	٧	F	N	I	NONE
241.	6	Δ	٧	F	F	0	NONE
255.	2	Α	٧	A	N	O	NONE
256.	2	A	٧	Α	N	I	NONE
257.	2	A	٧	A	F	Ð	NONE
258.	2	Α	٧	F	N	O	NONE
259.	2	A	V	F	N	I	NONE
260.	2	A	٧	F	F	O	NONE
264.	2	8	F	A	N	0	NONE
265.	2	В	F	A	F	1	NONE
266.	2	В	F	A	F	O	ANCH
267.	2	A	F	Α	F	Ü	NONE
268.	2	Α	F	A	N	I	NONE
269.	2 2	A	F	A	N	O	NONE
270.	2	A	F	F	F	O	NONE
271.	2	Δ	F	F	F	1	NONE
272.	2	A	F	F	N	O	NONE
274.	1	Δ	V	A	N	Û	NONE
275.	1	A	٧	A	N	1	NONE
276.	1	A	٧	A	F	C	NONE
277.	1	A	٧	F	N	0	NONE
278.	1	Α	٧	F	N	1	NONE
279.	1	A	V	F	F	ō	NONE
283.	1	В	F	A	N	0	NONE
284.	l	В	F	Α	F	1	NONE
285.	1	В	F	A	F	Ü	NONE
286.	1	A	F	A	F	Ö	NONE
287.	1	A	F	A	N	I	NONE
288.	1	A	F	A	N	C	NONE
289.	1	A	F	F	F	Ċ	NONE
290.	1	A	F	F	F	I	ı, E

# DPG 03 INITIAL CONDITIONS - 0400C 14 AUGUST 1969 (page 1 of 2 pages)

#### SOIL PARAMETERS

$$T_0' = 3.08 \, ^{\circ}C \, T_{-1}' = 22.67 \, ^{\circ}C \, \sqrt{\mu\lambda} = 0.036 \, \text{cal/cm}^{\frac{4}{3}} \text{deg}^2 \text{sec}$$

$$T_{-1/8}^{\dagger} = 26.83 \text{ °C}$$
  $T_{-2}^{\dagger} = 22.56 \text{ °C}$   $Z_{0} = 2.0 \text{ cm}$ 

$$T'_{-1/4} = 27.61$$
 °C  $\lambda = 0.59$  cal/cm<sup>3</sup>deg  $S_0 = .0004$  cal/cm<sup>2</sup>sec mb

$$T_{-1/2}^{\circ} = 26.33 \, ^{\circ}C$$
  $\mu/\lambda = .0037 \, cm^{2}/sec$   $G = 3500. \, cm^{2}sec \, deg/cal$ 

#### RADIATION PARAMETERS

Local 
$$e_8^{\dagger} = 6.71 \text{ mb}$$
  $F_c = 1.00$ 

$$\epsilon = 0.950$$
 j = 0.26  $\delta = 14.665$  deg

$$\phi = 40.2 \text{ deg} \quad m = 0.620$$

$$R \times 10^5 = 1.16$$
 °C/sec  
N = 0.20 n = 0.0415 mb<sup>-1/2</sup>

#### HORIZONTAL GRADIENTS

$$\frac{\partial e}{\partial x_{200}} = 0.72$$
 mb/100 km  $\frac{\partial e}{\partial x_{600}} = 0.55$  mb/100 km  $\frac{\partial e}{\partial x_{1000}} = 0.37$  mb/100 km

$$\frac{\partial e}{\partial y_{200}} = -0.69 \text{ mb/100 km}$$
  $\frac{\partial e}{\partial y_{600}} = -0.73 \text{ mb/100 km}$   $\frac{\partial e}{\partial y_{1000}} = -0.77 \text{ mb/100 km}$ 

$$\frac{\partial T}{\partial x_{200}} = -0.30 \text{ °C/100 km}$$
  $\frac{\partial T}{\partial x_{600}} = -0.30 \text{ °C/100 km}$   $\frac{\partial T}{\partial x_{1000}} = -0.30 \text{ °C/100 km}$ 

$$\frac{\partial T}{\partial y} = 0.07$$
 °C/100 km  $\frac{\partial T}{\partial y} = 0.15$  °C/100 km  $\frac{\partial T}{\partial y} = 0.23$  °C/100 km

DPG 03 INITIAL CONDITIONS - 0400C 14 AUGUST 1969 (page 2 of 2 pages)

WIND COMPONE	TTS (m/sec)		TEMPER	ATURE (°C	<u>VAPOR</u>	PRESSURE (m	<u>b)</u>
u <sub>8</sub> = -2.85	`	2.66	т <sub>8</sub>	<b>= 15.60</b>	e 8	<b>-</b> 6.71	
u <sub>32</sub> = -2.40		•	T <sub>32</sub>	= 22.50	e <sub>32</sub>	<b>- 6.38</b>	
u <sub>100</sub> = 0.78		<b>-</b> 2.58	T <sub>100</sub>	<b>= 23.09</b>	<b>e</b> 100	= 8.22	
u <sub>200</sub> = 1.95		<b>-</b> 3.38	T <sub>200</sub>	<b>-</b> 23.09	e <sub>200</sub>	= 8.12	
u <sub>300</sub> = 2.83	200	<b>=</b> 2.99	T <sub>300</sub>	= 23.00	e <sub>300</sub>	= 8.01	
u <sub>400</sub> = 2.86	300	<b>-</b> 2.96	T <sub>400</sub>	= 23.00	e <sub>400</sub>	<b>=</b> 7.85	
u <sub>500</sub> = 2.86		- 2.96	T <sub>500</sub>	= 23:00	e <sub>500</sub>	= 7.68	
u <sub>600</sub> = 2.86		2.06	T <sub>600</sub>	<b>= 23.</b> 00	e <sub>600</sub>	<b>=</b> 7.58	
u <sub>700</sub> = 2.86		= 2.96		= 22.30	e <sub>700</sub>	= 7.21	
u <sub>800</sub> = 2.86	,	<b>=</b> 2.96		= 21.58	e 800	<b>-</b> 7.05	
u <sub>900</sub> = 2.80				= 20.85	<sup>e</sup> 900	<b>=</b> 6.82	
u <sub>1000</sub> = 2.8				20.06	e <sub>1000</sub>	0 = 6.63	
ADVECTION T	ERMS (sec	)					
$a_{200}^{1}$ 0.25	x 10 <sup>-5</sup>	$a_{600}^{1} = 0.2$	?7 x 1	0 <sup>-5</sup> 0	$^{1}_{10\overline{0}0}^{0.30}$	x 10 <sup>-5</sup>	
$\beta_{200}^{1} = -0.12$	x 10 <sup>-5</sup>	β <sup>1</sup> <sub>600</sub> -0	.31 × 1	o <sup>-5</sup> 6	31000-0.50	x 10 <sup>-5</sup>	
a <sup>2</sup> 200 0.0	x 10 <sup>-3</sup>	a <sup>2</sup> <sub>600</sub> 0.0	) x 1	.0 <sup>-5</sup>	α <sup>2</sup> 10000.0	x 10 <sup>-5</sup>	
$\beta_{200}^2 = 2.18$	x 10 <sup>-5</sup>	β <sub>600</sub> 1.	38 x 3	10 <sup>-5</sup>	$\beta_{1000}^{2}$	x 10 <sup>-5</sup>	
CONTOUR GRADIENT TERMS							
			hour	6 hour	12 hour		
Azimuth	3. 3	40. 3	50.	360.	40.	(deg from	North)
Magnitude		16.28	16.28	16.28	16.28	(ft/100	km)
			126				

#### LASE DPG 3 COMPARISON DATA FROM DUGWAY ( 1 HOUR )

		MEDNENTS Y	EMPERATURE (DEG C)	VAPOR PRESSURE (MB)
υEO	4 - 86	-1.77		
1000	5-11	2.70	26.00	3.73
900	1.67	3.76	21.00	3.88
800	1.67	3.76	21.80	4.09
700	1.74	3.73	22.30	4.23
600	1.96	4.20	23.00	4.34
500	1.93	4.77	23.50	4.49
400	2.34	5.13	22.30	4.79
300	0.89	5.07	22.20	5.45
200	0.72	4.05	22.50	5.73
100	-1.54	2.67	19.50	6.27
32	2.04	3.67	23.60	0.31
ರ	. 0.47	1.63	22.00	6.51
2	-0.22	0.67	2C.9C	XXXX
0	XXXX	XXXX	XXXX	XXXX
Sull TE	MPERATUR	E (DEG C)	WIND	SPEED (M/SEC)
.0.0		C - 90	ä	1.70
0.125		25.06	2	0.70
· 0.250		26.11		
- 0.500		25.00	SURFAL	E SHEAR STRESS
- 1.000		21.44	LDYNE	S/CM SQ. 1 X10
2.000		21.33	TA	U= XXXX
		SURFACE ENERGY	TERMS (LY/SE	C) X1000

S(D)=	1.50	U(E,0)=	XXXX
R(N)=	XXXX	<b>⊕(S,O)</b> =	XXXX
$GI(c_0)=$	XXXX		

INTEGRATED EVAPOTRANSPIRATION (GM/CM SQ.1X100

E= XXXX

## CASE DPG 3 COMPARISON DATA FROM DUGWAY ( 2 HOUR )

		MPONENTS	TEMPERATURE (DEG C)	VAPOR PRESSURE
	U (M/	SEC) V	(DEG C)	(1.5)
GEO	-5.09	-0.90		
1000	2.30	3.41	17.60	5.38
	2.18	3.49	18.60	5.21
800	2.25	4.05	19.60	5.21
	1.80	3.70	20.00	5.31
	1.74	3.73	20.80	5.52
600	1.74	3.73	21.30	5.77
		3.76	21.00	5.96
400	0.69	3.54	20.30	6.11
300		3.06	20.20	6.19
200	-0.43	2.33	20.10	6.67
100	-1.09		24.70	6.55
~-		2.07	24.50	6.76
8	-1.13	1.89	23.90	XXXX
2	-1.07	1.32	XXXX	*XXX
0	XXXX	XXXX	***	
SOIL T	EMPERATU	RE (DEG C)	WIND	SPEED (M/SEC)
-0.0		14.90	8	2.20
-0.12	5	23.28	2	1.70
-0.25		24.44		
-0.50		23.61	SURFA	CE SHEAR STRESS
		20.06	(DYN	ES/CM SQ.JX10
-1.00 -2.00		19.89		AU= XXXX
-		SURFACE ENE	RGY TERMS (LY/S	EC1X1000

S(D)=	6.50	Q(E,0)=	XXXX
R(N)=	XXXX	Q(S,0)=	XXXX
010.01=	xxxx		

INTEGRATED EVAPOTRANSPIRATION (GM/CM SQ.1X100

## CASE CPG 3 COMPARISON DATA FROM DUGWAY ( & HOUR )

	•	OMPONENTS 7	TEMPERATURE (DEG G)	VAPOR PRESSURE
GEO	-5.17	0.0		
1000	6.02	7.70	20.50	8.33
900	6.15	7.60	21.50	8.75
800	6.15	7.60	22.60	9.07
700	5.95	7.09	23.70	9.46
600	6.20	6.88	24.90	9.87
500	6.20	6.88	25.80	9.69
400	5.06	5.82	26.90	10.66
300	4.05	4.66	27.80	10.85
200	2.98	3.55	29.20	10-04
100	1.65	1.97	30.70	9.13
32	-0.46	-2.15	34.60	7.06
8	-0.57	-2.13	34.00	6.80
2	-0.55	-1.61	32.20	XXXX
O	XXXX	XXXX	XXXX	XXXX
SUIL TE	MPERATU	RE (DEG C)	wIND S	SPEED (M/SEC)
-0.0		51.20	8	2.20
-0.125		19.56	2	1.70
-0.250		20.22		
-0.500		19.94	SURFACE	SHEAR STRESS
-1.000		16.67	(DYNES	7/CM SQ. / X10
-2.000		16.56	TAL	J= XXXX
		SURFACE ENERGY	TERMS (LY/SEC	. A x 1 0 0 0

### SURFACE ENERGY TERMS (LY/SEC) X1000

S(0)=	22.50	U(E,0)=	XXXX
R(N) =	XXXX	0(5,0)=	XXXX
CIC - OI =	***		

INTEGRATED EVAPOTRANSPIRATION (GM/CM SQ.) X100

## CASE CPG 3 CUMPARISUN DATA FRUM DUGWAY (12 HOUR )

		UMPUNENTS /SEC) V	TEMPERATURE (DEG L)	VAPUR PRESSURE (MB)
GEU	~3.46	3.32		
1000	-2.04	0.29	23.90	8.64
900	-1.54	-0.14	24.30	8.85
800	-1.54	0.0	25.30	9.02
700	-0.89	0.51	26.50	<b>8.91</b>
600	-0.66	0.79	27.70	ಚ.485
500	-0.66	0.79	28.90	8.69
400	-0.35	0.97	30.00	8.49
300	0.0	1.03	31.00	8-43
200	0.0	0.51	32.00	8.33
100	0.0	0.51	33.20	8.28
32	-3.40	-2.47	37.90	6.19
ಕ	-3.26	-2.64	37.30	5.77
2	-2.60	-2.34	36.40	XXXX
0	XXXX	XXXX	XXXX	XXXX
SOIL TE	MPERATU	RE (DEG C)	MIND	SPEED (M/SEC)
-0.0		48.10	8	4.20
-0.125		22.39	2	3.50
-0.250		20.44		
-0.500		19.28	SURFAC	E SHEAR STRESS
-1.000		16.39	(DYNE	S/LM 50+1 X10
-2.000		16.28	TA	.U≂ XXXX
		SURFACE ENERG	GY TERMS (LY/SE	C) X1000

2(0)=	6.50	Q(E,0)=	XXXX
R(N) =	XXXX	G(S+0)=	XXXX
01C.01=	XXXX		

INTEGRATED EVAPOTRANSPIRATION (GM/CM Su.) X100

## VELOCITY COMPONENTS

K(LM SC/: TAPE NU. INTERVAL	220	0.0	22	U29 1.0 HK		504 2.0 HR		304 5.0 HR	
	U COMPONENT (M/SEC)								
TEAET(W)	GPAL	UIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF	
GEU	-1.74	2.21	-1.74	2.22	-1-74	2.21	-1.74	2.22	
1000	-5.79	3.75	-4.47	-2.43	-5.95	-3.91	-5.59	-3.55	
900	-5.30	-3.82	-4.88	-3,34	-5.52	-3.98	-5.18	-3.64	
800	~5.lb	-3.61	-4.82	-3.28	-5.30	-3.70	-4.99	-3.45	
700	-5.02	-4.13	-4.74	-3.85	-5.15	-4.26	-4.85	-3.96	
600	-4.89	-4.23	4.64	-3.58	-5.02	-4.36	-4.73	-4.07	
500	-4.75	-4.10	-4.54	-3.88	-4.88	-4-22	-4.61	-3.95	
400	-4.63	-4.28	-4.42	-4.07	-4.72	-4.37	-4.48	-4.13	
300	-4.47	-4.47	-4.28	-4.28	-4.56	-4.56	-4.34	-4.34	
200	-4-28	-4.28	-4.1C	-4-10	-4.34	-4.34	-4.15	-4.15	
100	-3.97	-3.97	-3.80	-3.80	-4.Cl	-4.01	-3.84	-3.84	
32	-3.46	-0.06	-3.32	0.08	-3.48	-0.09	-3.35	0.05	
ь	-2.82	د4 ه ټ	-2.71	0.55	-2.83	0.43	-2.73	0.52	
		v	LOMPON	ENT (M/	SECI				
	204.	0.155	60.46	0.166	( f) A I		GPAC	DIFF	
LEVEL(M)	GPAL			DIFF	GPAL	DIFF			
6EO	0.11	-3.20	G.11	_	0.11	-3.21	0.11	-3.20	
1000	-1.10*			-1.53	0.05	-0.24	-1.23*		
900	-0.97			-0.96	0.04*		-1.03		
800	-0.86		-C-93		0.C3	0.03	-0.93		
700	-0.78*			-1.33	0.03	-0.47	-0.85*		
600	-0.74*			-1.55	0.02	-0.77	-0.80*		
500	-0.69*			-1.50	0.00	-0.78	-0.75*		
400	-0.65*			-1.63	-0.00*		-0.71*		
300	-0.61*			-1.06	-0.02*		-C.68*		
200	-0.59*	-1 c 1 C		-1.10	-0.03*		-0.64*		
100	-0.55*			-1.06	-0.05*		-0.60*		
32	-0.49	1.97	-0.51	1.56	-0.C7		-0.54		
8	-0.41	2.22	-C.42	2.22	-6.C7	2.50	-0.45	2.18	

TAPE NO.			221.0 12HR			222.0 12HR		225.0 12HR		
AIR TEMPERATURE (DEG 6)										
TEAET(W)	GPAC	DIFF	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF		
1000	24.26	0.76	24.27	0.77	23.83	0.33	24.67	1.17		
900	24.67	0.37	24.67	C.37	24.28	-0.02	25.09	0.79		
800	24.86	-0.44	24.86	-0.44	24.50	-0.80	25.29	-0.01		
700	25.02	-1.48	25.00	-1.50	24.66	-1.84	25.45	-1-05		
600	25.12	-2.58	25-11	-2.59	24.78	-2.92	25.56	-2.14		
500	25.22	-3.68	25.21	-3.69	24.90	-4.00	25.66	-3.24		
400	25.28	-4.72	25.28	-4.72	24.97	-5.03	25.73	-4.27		
200	25.36	-5.64	25.36	-5.64	25.07	-5.93	25.82	-5.18		
200	25.40	-6.60	25.41	-6.59	25.11	-6.89	25.87	-6.13		
100	25.46	-7.74	25.46	~7.74	25.17	-8.03	25.92	-7.28		
32	25.41	-12.49	25.41	-12.49	25.15	-12.75	25.89	-12.01		
8	25.22	-12.08	25-25	-12.05	25.00	-12.30	25.73	-11.57		
2	24.75	-11.65	24.80	-11.60	24.60	-11.80	25.32	-11.08		
0	24.24	XXXX	24.31	XXXX	24.15	XXXX	24.86	XXXX		
			VAPUR 4	PRESSURE	E (MB)					
LEVEL(M)	GPAC	1.1EF	GP AC	DIFF	GPAC	DIFF	GPAC	DIFF		
1000	9.37	0.73	9.41	0.77	10.47	1.83	9.82	1.18		
900	10.16	1.31	10.21	1.36	11.14	2.29	10.61	1.76		
800	10.65	1.63	10.72	1.70	11.59	2.57	11.11	2.09		
700	11.11	2.20	11.16	2.25	12.00	3.09	11.57	2.65		
600	11.50	2.65	11.55	2.70	12.38	3.53	11.96	3.11		
500	11.92	3.23	11.97	3.28	12.76	4.07	12.39	3.70		
400	12.32	3.83	12.37	3.88	13.15	4.66	12.81	4.32		
300	12.79	4.36	12.85	4.42	13.61	5.18	13.29			
200	13.32	4.99	13.39	5.06	14.12	5.79	13.83	5.50		
100	14.11	5.83	14.17	5.89	14.86	6.58	14.64			
32	15.21	9.02	15.29	9.10	15.88	9.69	15.77	9.58		
8	16.53	10.76	16.64		17.08		17.13	11.36		
2	19.55	19.55	19.75	19.75	19.79	19.79	20.20	20.20		
Ō		XXXX					23.58			

TAPE NO.		20.0 2HR		21.0 2HR		2.0 HR		25•0 2HR		
SOIL TEMPERATURE (DEG C)										
TEAET(W)	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	0168		
-0.0	25.62	-22.48	25.62	-22.48	25.56	-22.54	26.99	-21.11		
-0.125	24.69	2.30		2.30		2.28		4.16		
-0.250	25.68	5.24	25-69	5.25	25.69	5- 25		£ . 15		
	25.90	6.62	25.91	6.03	25.50	6.62		6.70		
-1.000	22.79	6.40	22.79	6.40	22.80	6.41	22.89	6.50		
-2.000	22.55	6.27	22.55	6.27	22.55	6.27	26.83	10.55		
			MIND SI	PEED (M	/ SEC }					
LEVEL(M)	GPAC	DIFF	EPAC	UIFF	GPAL	DIFF	GPAC	DIFF		
ಕ	2.87	-1.33	2.75	-1.45	2.85	-1.35	2.79	-1.41		
2	1.50	-2.00	1.43	-2.07	1.50	-2.00	1.46	-2.04		
	;	SURFACE	ENERGY	TERMS	(LY/5EL)	X1000				
PARAMETE	R GPAL	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF		
S(U)	6.71	0.21	6.66	0.16	6.66	0.16	6.70	0.20		
RIN	2.31	XXXX	2-28	XXXX	2.28	XXXX	2.28	XXXX		
416.01	-0.21	XXXX	-0.19	XXXX	-0.20	XXXX	-0.19	XXXX		
Q(E.O)	2.95	XXXX	2.86	XXXX	2.90	XXXX	3.11	XXXX		
2(5.0)	-0.39	XXXX	-0.37	XXXX	-0.40	XXXX	-0.60	XXXX		
	Su	RFACE SI	BEAR ST	RESS (D	YNES/CM	SQ1X10				
PARAMETE	Ř GPAL	DIFF	GPAC	UIFF	GPAC	DIFF	GPAC	DIFF		
TAU	1.94	XXXX	1-76	XXXX	2.10	XXXX	1.92	XXXX		
	INTEG	RATED EN	/APCTRAI	NSP IRAT	IĒN (GM/	CM SQLX	100			
PARAMETE	R GPAC	0166	GPAG	DIFF	GP AC	DIFF	GPAC	DIFF		
E	42.50		•			XXXX	-	XXXX		
•	42430	***	42.40	~~~	421.50	7777	10470	2222		

## VELSCITY COMPONENTS

KILM SQ/	SEC! 18284	18454	18929	744						
TAPE NO.	239.0	240.0	241.0	255.0						
INTERVAL		6HR	6HR	2HR						
		20111	OII.	27114						
	U COMPONENT (M/SEC)									
LEVEL(M)	GPAC BIFF	GPAC DIFF	GPAL DIFF	GPAC DIFF						
GEO	-1.73 3.43	-1.74 3.43	-1.74 3.43	-5.07 0.01						
1000	-0.39* -0.41	-C.55* -7.01	-0.98* -7.00	3.64 1.34						
900	-0.42* -6.57	-0.66* -6.81	-0.92* -7.07	3.59 1.41						
800	-0.45* -6.60	-0.60* -6.75	-0.85* -7.64	3.55 1.30						
700	-0.48* -6.43	-0.58* -6.53	-0.88* -6.83	3.43 1.64						
600	-0.50* -6.70	-C.58* -6.78	-0.88* -7.07	3.42 1.68						
500	-0.51 + -0.71	-C.57* -6.77	-0.85* -7.05	3.35 1.61						
400	-0.52* -5.58	-0.57# -5.63	-0.64* -5.90	3.28 1.62						
300	-0.52* -4.57	-0.56* -4.61	-0.82# -4.87	3.13 2.44						
200	-0.52* -3.50	-0.55* -3.53	-0.79* -3.77	2.60* 3.03						
10C	-0.49* -2.14	-0.52* -2.17	-0.73* -2.38	1.19# 2.28						
32	-0.44 0.61	-0.46 0.0	-0.64 -0.19	-1.16 -0.41						
8	-0.36 0.21	-0.38 0.19	-0.51 0.06	-1.65 -0.53						
		COMPONENT (M)	(SEC)							
TEAET(W)	GPAC DIFF	GPAC DIFF	SPAC DIFF	GPAC DIFF						
GEO	0.12 0.12	0.11 0.11	0.11 0.11	0.90* 1.80						
1000	-6.36*-14.06	-5.39 <b>*</b> -13.09	-6.26*-13.96	-1.99* -5.40						
900	-5.77*-13.37	-5.30*-12.90	~5.70*-13.30	-1.89# -5.33						
800	-5.44*-13.04	-5.14*-12.74	~5.39*-12.99	-1.87* -5.92						
709	-5.19+-12.28	-4-97-12-06	~5.16*-12.25	-1.78 * -5.48						
600	-5.00*-11.88	-4.82*-11.70	-4.96*-11.84	-1.77* -5.50						
500	-4-80*-11.68	-4.66*-11.54	-4.76*-11.66	-1.76* -5.49						
400	-4.61*-10.43	-4.51*-10.33	-4.60*-10.42	-1.67* -5.43						
300	-4.41* -9.07	-4-32* -8-98	-4.40* -9.06	-1.49* -5.03						
200	-4.18* -7.73	-4.C9* -7.64	-4.16* -7.71	-0.87* -3.93						
200	-3.82* -5.79	-3.75* -5.72	-3.81* -5.78	-0.46+ -2.79						
32	-3.31 -1.16	-3.25 -1.10	-3.30 -1.15	C.78 -1.28						
8	-2.68 -0.55	-2.64 -0.51	-2.68 -0.55	1.76 -0.13						
-	====	220. 0491		70.0 0.13						

TAPE NO. Interval		39.0 5HR		40.0 EHR	∠41. 6HR			
		AI	R TEMPE	EKATURE	(DEG C.	)		
TEAFT(W)	GUAL	UIFF	CPAC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	22-18	1.68	22.12	1.62	21.68	1.18	20.22	2.62
900	22.58	1.08	22.54	1.04	22.12	0.62	21-04	2.44
800	22.77	0.17	22.74	0.14	22.35	-0.25	21.77	2.17
700	22.93	-0.77	22.92	-0.78	22.53	-1.17	22-47	2.47
600	23.06	-1.84	23.04	-1.86	22.69	-2.21	23.02	2.22
50 <b>0</b>	23.20	-2.60	23.19	-2.61	22.84	-2.96	23.13	1.83
400	23.32	-3.58	23.31	-3.59	22.97	-3.93	23.15	2.15
300	23.48	-4.32	23.47	-4.33	23.15	-4.65	23.17	2.87
200	23.67	-5.53	23.06		23.35	-5.85	23.12	2.92
100	23.98	-6.72	23.96	-6.74	23.67	-7. ÜB	22.57	2.47
32		-10.16		-10.16		-10,43	19.79	-4.91
ä	25.02	-8.98	25.00	-9.00	24.76	-9.24	17-63	-6.87
2	26.32	-5.88	26.30	-5.90	26.12		16.82	-7.08
0	27.51	XXXX	27.49	XXXX	27.37	XXXX	16.00	XXXX
			VAPGR F	PRESSURI	E (MB)			
TEAET(W)	GPAC	DIFF	SP A C	DIFF	GPAL	DIFF	GPAC	DIFF
1000	6.76	-1.57	6.89	-1-44	7.59	-0.74	5.57	1.19
900	7.34	-1.41	7.42	-1.33	8.09	-0.66	6.75	1.54
800	7.70	-1.37	7.78	-1.29	8.41	-0.66	6.96	1.75
700	8.04	-1.42	8.11	-1.35	0.74	-0.72	7.17	1.86
600	8.32	-1.55	8.38	-1.49	9.C1	-0.86	7.43	1.91
500	8.65	-1.04	8.69	-1.00	9.31	-0.38	7.61	1.84
400	8.93	-1.73	8.98	-1.68	9.50	-1.08	7.75	1.79
300	9.29	-1.56	9.33	-1.52	9.91	-0.94	7.91	1.80
200	9-66	-0.38	9.71	-0.33	10.28	0.24	7.97	1.78
100	10.21	1.08	10.24	1.11	10.79	1.66	7.87	1.20
32	10.91	3.85	10.94	3.88	11.40	4.40	7-13	0.58
8	11.71	4.91	11.72	4.92	12.21	5.41	7.83	1.07
2	13.42	13.42	13.41	13.41	13.81	13.31	11.94	11.94
O	14.99	XXXX	14.97	XXXX	15.29	XXXX	16.14	XXXX

TAPE NO. INTERVAL	-	39.0 6HR		10.0 SHR	_	1.0 HR		5.0 HR			
SOIL TEMPERATURE (DEG C)											
		507									
LEVEL (H)	GPA(.	01FF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
		- 20.26		-29.26	21.90	-29.30					
-0.125	23.10	3.54	23.10	3.54	23.09	3.53	24.01	0.73			
÷0~.50	26.38	6-16	26.38	6.16	26.37	6.15	27.28	2.84			
-∂.50u	26.13	6.19	26.15	6.21	26.14	6.20	26.26	2.65			
~ 1 ∈ 0 ∪ 0	22.74	o.07	22.73	6.06	22.73	6.06	22.69	2.63			
-1-000	22.56	6.00	22.56	6.00	22.56	6.00	22.56	2.67			
			WIND SE	PEED (M/	(SEC)						
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
8		0.52	-								
2			1.28		1.31		1.22				
		SURFACE	ENEDCV	TEDMC A	LV/SEC 1	V1000					
	•	SUNFACE	ENERGI	ICKM3 (	L1/3601	YIUUU					
PARAMETE	R GPAC	01FF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
S(D)	22.66						6.48	-0.02			
	13.68		13.68	XXXX		XXXX		XXXX			
416,01	3.30	XXXX	3.32	XXXX		XXXX		XXXX			
G(E.O)	8.78	XXXX		XXXX	8.54		0.86				
	1.60		1.59	XXXX	1.57	XXXX	1.74	XXXX			
	<b>5.</b> 1	01115 61	:EAD 676	NECE 400	4 N:F C 24 M	501 410					
	50	RFALE SI	16AK 311	(E22 (D)	INE STUM	201 X TO					
PARAMETE	R GPAL	DIFF	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF			
	10.62			XXXX		XXXX	0.34				
<b>. .</b>				********							
	INTEG	RATED E	APOTRA	NSP IRAT I	ION (GM/	CM SULX	100				
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIF			
£	14.30	XXXX		XXXX		XXXX	0.40	XXXX			

## VELOCITY COMPONENTS

KICM SC/S TAPL NO. INTERVAL	INTERVAL 2HR		7 257 2H		8 ∠58 2H		8 25 <b>9</b> 2H	
		U	COMPONE	NT (M/	SEC )			
GEO 1000 900 800 700 600 500 400 300 200 100	3.55 3.43 3.42 3.35		GPAC -5.07 3.56 3.52 3.48 3.38 3.37 3.31 3.25 3.11 2.58* 1.18*		GPAC -1.74 4.13 4.08 4.04 3.93 3.91 3.85 3.78 3.61 3.07* 1.68* -0.53	DIFF 3.35 1.83 1.90 1.79 2.13 2.18 2.11 2.12 2.92 3.50 2.77 0.22	GPAC -1.74 2.63 4.06 4.04 3.93 3.90 3.85 3.78 3.61 3.07* 1.68*	DIFF 3.35 0.34 1.89 1.79 2.13 2.16 2.11 2.11 2.92 3.50 2.77 0.22
32 8	-1.65		-1.64			0.09	-1.03	0.09
		٧	COMPONI	ENT (M/	SEC)			
TEAET(W)		DIFF		01FF 1.81	GPAL 0.11*		GPAC 0.11*	
GEO 1000	0.90*		-2.06*		-0.97*	-4.38	-0.47*	-3.88
900 800 700 600	-1.92* -1.89* -1.78* -1.76*	-5.94 -5.48 -5.49	-1.95* -1.92* -1.82* -1.81* -1.80*	-5.97 -5.52 -5.54	-0.84* -0.75* -0.74* -0.72*	-4.89 -4.45 -4.47	-0.88* -0.86* -0.75* -0.74* -0.72*	-4.45 -4.47
500 400 300	-1.76* -1.67* -1.49* -0.87*	-5.43 -5.03	-1.71* -1.52*	-5.47	-0.64* -0.43* 0.13	-4.40 -3.97	-0.64* -0.43*	-4.40
200 100 32 8	-0.87* -0.46* 0.78	-2.79 $-1.29$	-0.48*		0.58 1.76	-1.74 -0.31 0.57	0.58	-1.74 -0.31 0.57

TAPE NO. INTERVAL	256.0 2HR			7.0 HR		8-0 HR		
		Al	R TEMPE	RATURE	IDEG CI			
TEAET(W)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	20.19	2.59	20.04	2.44	20.22	2.62	20.19	2.59
900	21.02	2.42	20.87	2.27	21.05	2.45	21-04	2.44
800	21.76	2.16	21.60	2.00	21.77	2.17	21.77	2.17
700	22.49	2.49	22.31	2.31	22.48	2.48	22.47	2.47
600	23.01	2.21	22.85	2-05	22.99	2.19	23.01	2.21
<b>50</b> 0	23.13	1.83	22.99	1.69	23.13	1.83	23.13	1.83
400	23.15	2.15	23.02	2.02	23.14	2.14	23.15	2.15
300	23.17	2.87	23.06	2.76	23.17	2.87	23.17	2.87
200	23.13	2.93	23.02	2.82	23.09	2.89	23.09	2.89
100	22.57	2.47	22.51	2.41	22.47	2.37	22.47	2.37
32	19.78	-4.92	19.76	-4.94	19.85	-4.85	19.85	-4.85
8	17.63	-6.87	17.62	-6.88		-6.64	17.89	-6.61
2	16.84	-7.06	16.82	-7.08	16.91	-6.99	16.92	-6.98
0	16.03	XXXX	16.C1	XXXX	15.93	XXXX	15.92	XXXX
			VAPOR P	RESSUR	E (MB)			
LEVEL(M)	GPAC	UIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	6.60	1.22	6-71	1.33	6.58	1.20	6.61	1.23
900	6.78	1.57	6.91	1.70	6.77	1.56	6.81	1.60
800	6.98	1.77	7-11	1.90	6.98	1.77	6.99	1.78
700	7-17	1.86	7.31	2.00	7.18	1.87	7.19	1.88
600	7-42	1.90	7.55	2.03	7.43	1.91	7.44	1.92
500	7.61	1.84	7.73	1.96	7.62	1.85	7.62	1.85
400	7.74	1.78	7.88	1.92	7.76	1.80	7.76	1.80
300	7.91	1.80	8-03	1.^2	7.91	1.80	7.91	1.80
200	7.97	1.78	8.08	1.89	7.96	1.77	7.96	1.77
100	7.86	1.19	7.94	1.27	7.85	1.18	7.85	1.18
32	7.11		7.15	0.60	7.26	0.71	7.25	0.70
8	7-83		7.84	1.08	8.02	1.26	8.02	1.26
2	11.93	11.93	11.93	11.93	11-86	11.86	11.84	11.84
0	16-11	XXXX	16.12	XXXX	15.78	XXXX	15.75	XXXX

TAPE NU. INTERVAL				57.0 2HR	_	8.0 HR		9.0 HR		
		201	L TEMP	ERATURE	(DEG C)					
LEVEL(M)	GPAC	DIFF	GP AC	DIFF	GPAL	DIFF	GPAC	DIFF		
-0.0	10.00	-4.90	9.98	-4.92	9.97		9.97			
-0.125		0.73					24.01			
-0.250		2.84					27-28			
-0.500	26.26	2.65	26.25	2.64	26.26	2.65	26-26	2.65		
-1.000	22.68	2.62	22.68	2.62	22.68	2.62	22.69	2.63		
-2.000	22.56	2.67	22.56	2.67	22.56	2.67	22.56	2.67		
WIND SPEEL (M/SEC)										
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF		
8					2.67					
2		-0.48			1.35		1.35			
	S	URFACE	ENERGY	TERMS	(LY/SEC)	X1000				
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF		
SIDI	6.48	-0.02	6.47	-0.03	6.47	-0.03	6.47	-0.03		
R(N)	2.51	XXXX	2.51	XXXX	2.54	XXXX	2.54	XXXX		
010.01	-0.07	XXXX	-0.07	XXXX	-0.11	XXXX	-0.11	XXXX		
Q(E,0)	0.86	XXXX	0.85	XXXX	0.95	XXXX	0.95	XXXX		
		XXXX	1.73	XXXX	1.71	XXXX	1.71	XXXX		
	SUR	FACE SH	EAR ST	RESS (D	YNES/CM	Su) X10				
PARAMETE	R GPAC	DIFF	GP AC	DIFF	GPAC	DIFF	GPAC	DIFF		
TAU	0.34	XXXX	0.34				0.45	XXXX		
	INTEGR	RATED EV	APOTRA	NSPIRAT	IGN (GM/	CM SQ) X	100			
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF		
E	0.40	XXXX	0.40	XXXX		XXXX	0.40	XXXX		

## VELOCITY COMPONENTS

KICH SQ/	SEC)	864	23	789	· ·	789	27	189
TAPE NO.		0.0	264		_	5.0		
INTERVAL	_	HR		HR		HR	266	
2111 2111 112	-	· IIX	21	in.	21	TIK.	21	iR
		U	COMPONE	NT (M/	SEC)			
LEVEL(M)	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF	GPAC	DIFF
GEO	-1.74	3.35	-5.07	0.01	-5.08	0.01	-5.07	0.01
1000	4.07	1.77	3.63	1.34	1.75	-0.55	3.55	1.26
900	4.02	1.85	3.58	1.40	3.36	1.18	3.50	1.32
800	3.99	1.74	3.50	1.25	3.41	1.16	3.45	1.20
700	3.89	2.09	3.39	1.59	3.32	1.53	3.34	1.55
6 <b>0</b> ¢	3.08	2.14	3.26	1-52	3.21	1.47	3.21	1.47
500	3.82	2.08	3.08	1.34	3.04	1.30	3.04	1.30
400	3.76	2.10	2.82	1.15	2.78	1.12	2.78	1.12
300	3.59		2.51	1.82	2.48	1.79	2.48	1.79
200	3.06*		2.13*	2.56	2.10*	2.53	2.10*	2.53
100	1.68*		1.65*		1.63*	2.72	1.63*	2.72
32	-0.53	9-22	1.18*	1.93	1-17*	1.92	1.17*	1.92
8	-1.04	0.09	0.89*	2.02	<b>0-88</b> *	2.01	0-88*	2.00
		٧	COMPONE	NT (M/	SEC)			
TEAET(W)			GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
GEQ	0.11*	1.01	0.90*	1.80	0.91*	1.81	0.91*	1.81
1000	-1.03*	-4.44	-1.99*	-5.40	-1.47*	-4.88	-2.04*	-5.45
900	-0.92*		-1-88*	-5.37	-1.88*	-5.37	-1.94*	-5.43
800	-0.89*		-1.82*	-5.87	-1.87*	-5.92	-1.87*	-5.92
700	-0.80*	-4.50	-1.74*	-5.44	-1-78*	-5.48	-1.78*	-5-48
600	-0.78*		-1.64*		-1.69*	-5.42	-1.69*	-5.42
500	-0.77*		-1.52*	-5.25	-1.56*	-5.29	-1.56*	-5.29
400	-0.67*		-1.36*		-1-40*	-5.16	-1-40*	-5-16
300	-0.47*		-1.19*		-1.22*		-1.22*	-4.76
200		-2.95	-1.00*		-1.03*	-4.09	-1-03+	-4-09
100		-1.76	-C.79*		-0.82*	-3.15	-0.82*	-3.15
32	1.75		-0.66*		-0.68*	-2.75	-0.68*	-2.75
8	2.45	0.57	-0.56*	-2-45	-0.57*	-2.46	-0.57*	-2-46

TAPE NU. Interval	260.0 2HR			4.0 HR		5.0 HR		6.0 HR
		IA	K TEMPE	RATURÉ	(DEG C)			
LEVEL (M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	20.05	2.45	20.49	2.89	20.31	2.71	20.31	2.71
900	20.88	2.28	21.48	2.88	21.32	2.72	21.32	2 <b>.7</b> 2
80 <b>0</b>	21.62	2.02	22.06	2.46	21.90	2.30	21-90	2.30
700	22.32	2.3 <i>2</i>	22-41	2.41	22.25	2.25	22.25	2.25
600	22.84	2-04	22.57	1.77	22.43	1.63	22.42	1.62
500	22.98	1.68	22.62	1.32	22.48	1.18	22.48	1.18
400	23.02	2.02	22.54	1.54	22.41	1.41	22-41	1.41
300	23.05	2.75	22.36	2.06	22-26	1.96	22.26	1.96
200	22.98	2.78	22-04	1.84	21.94	1.74	21.94	1.74
100	22.41	2.31	21.55	1.45	21.48	1.38	21.47	1.37
32	19.82	-4-88	20.88	-3.82	20.83	-3.87	20.83	-3.87
8	17.86	-6.64	20-46	-4.04	20.43	-4.07	20.42	-4.08
2	16.91	-6.99	20-04	-3.86	20.02	-3.88	20.01	-3.89
0	15.94	XXXX	19.60	XXXX	19.60	XXXX	19.59	XXXX
			VAPOR P	RESSURE	(MB)			
LEVEL(M)	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	6.72	1.34	6.61	1.23	6.77	1.39	6.76	1.38
900	6-91	1.70	6.86	1.65	7.02	1.81	7.02	1.81
800	7.11	1.90	7.0€	1.85	7.19	1.98	7.19	1.98
700	7.31	2.00	7.24	1.93	7.38	2.07	7.37	2.06
600	7.55	2.03	7.38	1.86	7.51	1.99	7.51	1.99
500	7.74	1.97	7.55	1.78	7.67	1.90	7.66	1.89
400	7.89	1.93	7.65	1.73	7.80	1.84	7.81	1.85
300	8.02	1.91	7.87	1.76	7.99	1.88	7.99	1.88
200	8.08	1.89	8.09	1.90	8.19	2.00	8.20	2.01
100	7.91	1.24	8.55	1.88	8.63	1.96	8.63	1.96
32	7 - 28	0.73	9.37	2.82	9.43	2.88	9.43	2.88
8	8.03	1.27	10.62	3.86	10.69	3.93	10.67	3.91
2	11.87	11.87	13.60	13.60	13.64	13.64	13.64	13.64
o	15.79	XXXX	16.65	XXXX	16.67	XXXX	16.68	XXXX

TAPE NO. INTERVAL		60 • 0 2HR		64.0 2HR	265.u 2HR			6.0 HR			
		201	L TEMP	ERATURE	(DEG C)						
TEAET(W)	GPAC	D14 F	GP AC	DIFF	GPAL	DIFF	GPAC	DIFF			
-0.0	9.98	-4.92	19.55	4.65	19.56	4.66	19.55	4.65			
-0-125	24.01	0.73	25.71	2-43	25-71	2.43	25.71	2.43			
-0.250	27.28	2.84	27-38	2.94	27.38	2.94	27.38	2.94			
-0.500	26.26	2.65	26.26	2.65	26.26	2.65	26.26	2.65			
-1.000	22.69	2.63	22-69	2.63	22.69	2.63	22.70	2.64			
-2.000	22.56	2.67	26.84	6.95	26.84	6.95	26.84	6-95			
WIND SPEED (M/SEC)											
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
8	2.66	0.46	1.08	-1.12	1.08	-1.12	1.08	-1.12			
2	1.35	-0.35	C • 55	-1.15	0.55	-1.15	0.55	-1-15			
	\$	URFACE	ENERGY	TERMS (	LY/SEC)	x1000					
PARAMETE	R GPAC	UIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF			
SID	6.48	-0.02	6-47	-0.03	6.45	-0.05	6.48	-0.02			
R(N)	2.53	XXXX	2.30	XXXX	2.30	XXXX	2.30	XXXX			
u(C.O)	-0.11	XXXX	-0.16	XXXX	-0.16	XXXX	-0.16	XXXX			
Q(E.O)	0.95	XXXX	2.46	XXXX	2-40	XXXX	2.45	XXXX			
0(5,0)	1.71	XXXX	C.02	XXXX	0.01	XXXX	0.02	XXXX			
	SUF	RFACE SH	HEAR STA	RESS (DY	NES/CM	241XI0					
PARAMETER	R GPAC	DIFF	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF			
TAU	0 • 44	XXXX	0.62	XXXX	0.62	XXXX	U-64	XXXX			
	INTEGR	KATED EV	APOTRAN	NSP I RAT I	.CN [GM/	CM SUIX	160				
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GP AC	1410	GPAC	DIFF			
E	0.40	XXXX	2.10	XXXX	2.10	XXXX	2.10	XXXX			

## VELOCITY COMPUNENTS

KICM SO/S	EC) 27	<b>b</b> 4	21	784	27	89	27	
TAPE NO.	267		268	3.0	209	. U	270	
INTERVAL	2h		21	HR .	28	K	2H	R
THE ELLY WE								
		U	COMPUNE	ENT (M/	SELI			
TEAFT(W)	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF
GEO	-5.07	0.01	-5.07	0.01	-5.C7	0.01	-1.74	3.34
1000	3.55	1.26	1.83	-0.47	3.63	1.34	4.06	1.77
900	3.51	1.33	3.45	1.27	3.57	1.40	4.01	1.84
800	3.45	1.20	3.48	1.23	3.51	1.20	3.95	1.70
700	3.33	1.53	3.39	1.59	3.39	1.60	3.84	2.05
600	3.21	1.47	3.26	1.52	3.26	1.52	3.72	1.98
500	3.04	1.30	3.08	1.34	3.C8	1.34	3.54	1.80
400	2.78	1.12	2.82	1.15	2.82	1.15	3.29	1.62
300	2.48	1.79	2.51	1.62	2.51	1.82	2.99	2.30
200	2.10*	4.53	2.12*	2.55	2.13*	2.56	2.61*	3.04
100	1.63*	2.72	1.65*		1.65*	2.74	2.13*	3.22
32	1.17*	1.92	1.18*	1.93	1.18*	1.93	1.62*	2.37
8	0.88*	2.01	0.89*	2.02	C.89*	2.02	1.26*	2.39
· ·								
			COMPON	ENI (M/	SEC 1			
LEVELIMA	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	
GEO	0.90*	1.8C	C-80*	1.80	0.51*			1.01
1000	-2.04*		-1.45*	-4.86	-1.99*		-1.02*	
900	-1.94*			-5.34	-1.86	-5.37	-0.91*	
80C	-1.87*			-5.88	-1.82*	-5.87	-0.84*	
700	-1.78*			-5.44	-1.74*		-0.70*	
600	-1.69*			-5.38	-1.65*	-5.3b	-0.66*	
500	-1.57*			-5.25	-1.52*	-5.25	-0.54*	
400	-1.41*			-5.12	-1.36*	-5.12	-0.38*	
300	-1.22*			4.73	~1.19*		-0.20*	
20 <b>0</b>	-1.03*			-4.05	( - 99*		C • 01 *	
100	-0.82*			-3.13	-0.79*		0.18	-2.15
32	-0.68*			-2.73	-0.66*		0.25	-1.81
<b>3</b>	-0.57*			-2.45	-6.56*		C. 22	-1.66

TAPE NO. INTERVAL	267.0 2HR			8+0 HR		9.0 HR	270.0 2HR	
		IA	R TEMPE	RATURE	(DEG C)	•		
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GP AC	DIFF	GPAU	DIFF
1000	20.30	2.70	20.46	2 6 8 6	20.48	2.88	20.31	2-71
900	21.31	2.71	21.47	2.87	21.48	2.88	21.32	2.72
800	21.90	2.30	22.05	2.45	22.06	2.46	21.91	2.31
<b>7</b> 00	22.24	2.24	22-41	2.41	22.39	2.39	22.24	2.24
600	22.40	1.60	22.55	1.75	22.54	1.74	22.41	1.61
500	22.43	1.13	22.56	1.26	22.56	1.26	22.43	1.13
400	22.32	1.32	22-43	1.43	22.43	1.43	22.31	1.31
300	22.07	1.77	22.17	1.87	22.18	1.88	22.07	1.77
200	21.62	1.42	21.70	1.50	21.71	1.51	21.61	1.41
100	20.90	0.80	20.97	0.87	20.97	0.87	20.91	0.81
32	19.81	-4.89	19.86	-4.84	19.85	-4.85	19.81	-4.89
8	18.91	-5.59	18.95	-5.55	18-94	-5.56	18.92	-5.58
2	17.46	-6.44	17.49	- 5.41		-6.42	17.47	-6.43
0	16.01	XXXX	16.02	XXXX	16.01	XXXX	16.01	XXXX
			VAPOR P	RESSUR	E (MB)			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF
1000	6.75	1.37	6.65	1.27	6.62	1.24	6.76	1.38
900	7.00	1.79	6.90	1.69	6.87	1.66	7.02	1.81
ងបប	7.21	2.00	7.07	1.86	7.05	1.84	7.19	1.98
700	7.37	2.06	7.24	1.93	7.23	1.92	7.37	2.06
600	7-49	1.97	7.36	1.84	7.36	1.84	7.49	1.97
500	7.02	1.85	7.51	1.74	7.52	1.75	7.64	1.87
400	7.75	1.79	7.62	1.66	7.62	1.66	7-74	1.78
300	7.88	1.77	7.76	1.65		1.65	7.87	1.76
200	8.02	1.83	7.92	1.73	7. 91	1.72	8.01	1.82
100	8 • 29	1.62	8.21	1.54	8.21	1.54	8.28	1.61
32	8.78	2.23	8.73	2.18	8.73	2,18	8.78	2.23
8	4.63	2.87		2.83		2.82	9.63	2.87
2	11.75	11.75	11.72	11.72	11.71	11.71	11.76	11.76
0	13.89	XXXX	13.86	XXXX	13.80	XXXX	13.90	XXXX

TAPE NU. INTERVAL	_	57.0 2HR		08-0 2HK	269.0 2HK		2 <b>70.</b> 0 2HR			
		5ú1	L TEMPE	KATURE	(DEG C)					
LEVET(W)	GPAC	DIFF	GP AL	DIFF	6PAL	DIFF	GPAC	DIFF		
-0.0	10.87	-4.03	10.86	4.04	10.86	-4.04	10.86	-4.04		
-0.125	24.12	0.84	24.12	0.84	24.11	0.83	24.12	0.84		
-0-250	27.28	2.84	27.29	2.85	27.28	2.84	27.28	2.84		
-0.500	26.26	2.65	25.26	2.65	26.27	2 <b>. 66</b>		2.65		
-1.000					22.68			2.63		
-2.000	22.50	2.67	22.55	2.66	22.56	2.67	22.56	2.67		
WIND SPEED (M/SEC)										
LEVEL(M)	GPAC	DIFF	GPAL	DIFF	GPAC	UIFF	GPAC	DIFF		
ಕ	1.08	-1.12	1.08	-1.12	1.08	-1.12	1.30	-0.90		
2					0.54			-1.05		
	S	SURFACE	ENERGY	TERMS	(LY/SEU)	×1000				
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF		
5(0)	6.47	-0.03	6.47	-0.03	6.47	-0.03	6.47	-0.03		
REN2	2.63	XXXX	2.63	XXXX	2.63	XXXX	2.63	XXXX		
U(C.O)	-0.57	XXXX	-0.58	XXXX	-0.58	XXXX	-0.58	XXXX		
C(E.O)	1.74			XXXX	1.75	XXXX	1.74	XXXX		
u(S, O)	1.48	XXXX	1.48	XXXX	1.48	XXXX	1.48	XXXX		
	Suf	RFACE SH	EAR STR	1622 (D)	YNES/CM	SQ) X10				
PARAMETE	R GPAL	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF		
TAU	0.64	XXXX	0.62	XXXX	0.62	XXXX	0.74	XXXX		
	INTEG	ATED EV	APOTRAN	SPIRAT.	ION (GM/	CH SQLX	100			
PARAMETE	R GPAL	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF		
Ė	1.20	XXXX	1.30	XXXX	1.30	XXXX	1.30	XXXX		

## VELUCITY COMPONENTS

KIEM SE/S	EC) 27	89	27			94		.79
TAPE NU.	271	e O	272	. O	274		275	
INTERVAL	2h	R	∠H	ĸ	1H	ik .	11	IR .
•,,,, = ,,,, =								
		U	COMPUNE	NT (M/	2FC1			
LEVEL(N)	6621	UIFF	GP A C	DIFF	CPAC	DIFF	GPAC	DIFF
GEU	-1.74	3.35		3.35	-4,84	0.02	-4.84	0.02
1000	2.68	G.38	4.13	1.83	3.48	0.37	2.44	-0.67
900	3.90	1.73	4.07	1.89	3.45	1.79	3.45	1.79
800	3.93	1.68	4.00	1.75	3.43	1.77	3.43	1.77
700	3.84	2.04	3.85	2.09	3.30	1.62	3.36	1.62
600	3.72	1.98	3.76	2.02	3.37	1.41	3.37	1.41
500	3.54	1.60	3.58	1.84	3.33	1.40	3.33	1.40
400	3.29	1.62	3.32	1.65	3.29	0.90	3.29	
300	2.99	2.30	3.G1	2.32	3.22	2.33	3.22	2.33
200	2.61*	3.04	2.62*	3.05	2.51*	3.23	2.51*	3.23
100	2.12*	3.21	2.13*	3.22	1.11*		1.11*	
32	1.62*	2.37	1.63*	2.38	-2.13		-2.13	
8	1.20*	2.39	1.27*	2.40	-3.39	-2.92	-3.39	-2.92
		V	COMPONE	NI IM/	SEC)			
		٧	CONFERE	_144 (117	3201			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF		DIFF
GEO	0.11*		0.11*	1.01		3.54		3.54
1000	-0.54*		-Ce96*	-4.37	0.58	-2.11	0.74	
900	-0.86*		-C.86*		0.64	-3.11	0.64	-3.11
800	-0.84*		-0.50 <b>*</b>		0.65	-3.1C	0.64	-3.11
700	-0.70*		-0.71*		0.69	-3.03	0.69	~3.03
600	-0.65*		-0.62*		0.69	-3.51	0.69	-3.51
500	-0.54*		-C.45#		0.45	-4.07	0.69	-4.07
400	-0.38*		-C.34*		0.72	-4.40	0.72	~4.40
300	-0.20*		-C.16*		0.78	-4.28	0.78	-4.29
200	-0.0.*			-3.04	1.41	-2.63	1.41	-2.63
100	0.18			-2.13	1.10	-1.55	1.10	-1.56
32		-1.81			1.37	-2.29	1.37	-2.29
<b>32</b>			0.23		3.58	1.95	3.57	1.95

TAPE NO. Interval	271 • 0 2HR			2.0 HR		4.0 HR	2 <b>7</b> 1	5.0 HR
		AI	R TEMPE	RATURE	(DEG C)			
LEVELIMA	GPAL	DIFF	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF
1000	20.31	2.71	20.48	2.88	20.11	0.11	20.11	0.11
900	21,32	2.72	21.48	2.88	20.92	-0.08	20.92	-0.08
800	21.90	2.30	22.06	2.40	21.65	-0.15	21.64	-0.16
<b>7</b> 00	22.24	2.24	22-41	2.41	22.30	0.06	22.36	0.06
600	22.39	1.59	22.55	1.75	23.03	0.03	23.03	0.03
500	22.43	1.13	22.57	1.27	23.06	-0.44	23.07	-0.43
400	22.31	1.31	22-43	1.43	23.C6	0.76	23.07	0.77
300	22.06	1.76	22.18	1.88	23.08	0.88	23.08	0.88
200	21.61	1.41	21.71	1.51	23.15	0.65	23.14	0.64
100	20.91	0.81	20.98	C.88	23.03	3-53	23.02	3.52
<b>3</b> 2	19.81	4.85	19.86	-4.84	19.52	-4-08	19.52	-4.08
8	18.91	-5.59	18.94	-5.56	15.92	-6.08	15.93	-6.07
۷	17.47	-0.43	17.48	-6.42	11.24	-9.66	11.25	-9.65
0	16-01	XXXX	16.01	XXXX	6.54	XXXX	6.54	XXXX
			VAPOR P	RESSURE	(MB)			
LEVEL(M)	GPAC	DIFF	GP AC	DIFF	GPAL	DIFF	GPAC	DIFF
1000	6.76	1.38	6 63	1.25	6.62	2.89	6.63	2.90
900	7.02	1.81	6.88	1.07	6.82	2.94	6.82	2.94
800	7-19	1.98	7.07	1.86	7.03	2.94	7.03	2.94
700	7.37	2.06	7.25	1.94	7.21	2.98	7.21	2.98
600	7.49	1.97	7.37	1.85	7.53	3-19	7.53	3.19
500	7.0+	1.87	7.53	1.70	7.68	3.19	7.67	3.18
400	7.74	1.78	7.63	1.67	<b>7.</b> 83	3.04	7.82	3.03
300	7.90	1.79	7.78	1.67	7.99	2,54	7.99	2.54
200	8.01	1.82	7.92	1.73	8.07	2.34	8.08	2.35
100	8.29	1.62	8.21	1.54	8.13	1-86	8.13	1.86
<b>3</b> 2	8.78	2.23	8.74	2.19		0.23	6.53	0.22
ಕ	9-63	2.87			6.64			
2	11.75	11.75	11.72	11.72	8.13		8.13	8.13
O	13.88	XXXX	13.87	XXXX	9.57	XXXX	9.57	XXXX

TAPE NO.		1.0 HR	272•0 274•0 2HR 1HR		_	275.0 1HR		
		SOI	L TEMPE	RATURE	(DEG C)			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
-0.0	10.86	-4.04	10.87	-4.03	6.29	5.39	6.27	5.37
-0.125	24.11	0.83	24.12	0.84	25.10	0.10	25.15	0.09
	27.28	2.84	27.28	2.84	27.47	1.36	27.47	1.36
	26.26	2.65		2.65	26.28	1.28	26.28	1.28
	22.68	2.62		2.62	22.67	1.23	22-67	1.23
-2.000	22.56	2.67	22.56	2.67	22.56	1.23	22.56	1.23
			WIND SP	FFD (W/	SECI			
TEAET(W)	CDAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF
8	1.30	-0.90	1.31	-0.89	4.95	3.25	4.94	3.24
2	0.65	-1.05	0.66	-1.04	2.48	1.78	2.48	1.78
	S	SURFACE	ENERGY	TERMS (	LY/SEC)	x1000		
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
3(0)	6.47	-0.03	6-48	-0.02	1.60	0.16	1.65	0.15
	2.62	XXXX	2.63	XXXX	0.02	XXXX		XXXX
	-0.57	XXXX	-0.58	XXXX	-0.11	XXXX	-0.10	XXXX
	1.74	XXXX	1.75	XXXX	0.07	XXXX	0.07	XXXX
0(5.0)	1.48	XXXX	1-48	XXXX	0.08	XXXX	0.08	XXXX
	SU	RFACE SH	EAR STR	ESS (D)	/NES/CM	SQ1 X 10		
PARAMETE	R GPAC	DIFF	GPAL	DIFF	GPAC	DIFF	GPAC	DIFF
TAU	0.76	XXXX	0.70	XXXX	0.16	XXXX	0.14	XXXX
	INTEG	RATED EV	APOTRA	SPIRAT.	ION (GM/	CM 201)	(100	
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
E	1,30	XXXX	1.20	XXXX	0.20	XXXX	0.10	XXXX

## VELOCITY COMPONENTS

KICH SE/		194		224		244	244					
TAPE NU.		6.0		7.0		8.0		9.0				
INTERVAL	1	HR		1HR		HR	1HR					
					_	• • • •	•	• • • • • • • • • • • • • • • • • • • •				
	U COMPONENT (M/SEC)											
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF				
GE O	-4.84	0.02	-1-74	3.11	-1.74	3-12	-1.74	3.12				
1000	3.46	0.35	3.81	0.70	3.00	-0.11	3.80	0.69				
900	3.43	1.77	3.79	2.12	3.79	2.12	3.77	2.11				
800	3.42	1.75	3.77	2.10	3.77	2.11	3.75	2.09				
700	3.35	1.61	3.69	1.95	3.69	1.95	3.69	1.95				
600	3.35	1.40	3.70	1.74	3.70	1.75	3.69	1.74				
500	3.32	1.39	3.66	1.74	3.66	1.74	3.66	1.73				
400	3.29	0.90	3.63	1.24	3,63	1.24	3.63	1.24				
300	3.22	2.33	3.56	2.67	3.55	2.66	3.55					
200	2.51*	3.23	2.84*	3.56	2.85*	3.57	2.84*					
100	1.11*		1.44*	2-98	1.44*	2.98	1.44*					
32		-0.09			-1.76	0.28	-1.76					
8	-3.39	-2.92	-3.00	-2.53	-3.00	-2.53	-3.01					
		v	COMPONI	ENT (M/	SEC)							
TEAET(W)	GPAL	DIFF	<b>GP AC</b>	DIFF	GPAL	DIFF	GPAC	DIFF				
GEÐ	1.78*	3.55	C-11*	1.88	0.11*	1.88	0.11*	1.88				
1000	0.57		1.08	-1.62	1.21	-1.49	1.06	-1.64				
900	£0.0	-3.13	1.13	-2.63	1.12	-2.63	1.11	-2.64				
800		-3-12	1.14	-2.61	1.14	-2.62	1.12	-2.63				
700	0.68	-3.05	1.18	-2.55	1.17	-2.56	1.16	-2.56				
600	0.68	-3.51	1.18	-3.02	1.18	-3.02	1.17	-3.03				
500	0.67	-4.10	1.17	-3.60	1.17	-3.60	1.16	-3.60				
400	0.71	-4.41	1.21	-3.91	1.21	-3.91	1.21	-3.92				
300	0.77	-4.30	1.28	-3.79	1.28	-3.79	1.27	-3.80				
200	1.40	-2.64	1.89	-2.16	1.89	-2.16	1.88	-2.16				
100	1.09	-1.57	1.59	-1.07	1.59	-1.08	1.59	-1.07				
32	1.37	-2.29	1.88	-1.79	1.88	-1.78	1.88	-1.79				
8	3.57	1.95	3.97	2.35	3.97	2.35	3.98	2.35				

TAPE NO. INTERVAL		6.0 .HR		7.0 HR	278.0 1HR		279.0 1HR	
		Al	R TEMPE	RATURE	(DEG C)			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	21.04	0.04	20.12	0.12	20.11	0.11	20.04	0.04
900	29.84	-0.16	20.92	-0.08	20.92	80.0-	20.85	-0.15
800	21.57	-0.23	21.65	-0.15	21.64	-0.16	21.58	-0.22
700	22.29	-0.01	22-36	0.06	22-36	0.06	22.29	-0.01
600	22.97	-0.03	23.03	0.03	23.03	0.03	22.96	-0.04
500	23.01	-0.49	23.06	-0.44	23.06	-0-44	23.00	-0.50
400	23.01	0.71	23.06	0.76	23.06	0.76	23.01	0.71
300	23.02	0.82	23-08	0.88	23.C8	0.88	23.02	0.82
200	23.11	0.61	23.14	0.64	23.15	0.65	23.11	0.61
100	23.01	3.51	23.01	3.51	22.99	3.49	22.97	3.47
32	19.51	-4-09	19.53	-4.07	19.53	-4.07	19.52	-4.08
8	15.91	-6.09	15.94	-6.06	15.94	-6.06	15.95	-6.05
2	11.24	-9.66	11.27	-9.63	11.27	-9.63	11.28	-9.62
0	6.54	XXXX	6.58	XXXX	6.58	XXXX	6.58	XXXX
			VAPOR P	RESSUR	E (MB)			
TEAET(W)	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF
1000	6.66	2.93	6.63	2.90	6.64	2.91	6.67	2.94
900	6-85	2.97	6.82	2.94	6.83	2.95	6.86	98ء
800	7.07	2.98	7.03	2.94	7.03	2.94	7.06	€.97
700	7.25	3.02	7.21	2.98	7.22	2.99	7.24	.01
600	7.57	3.23	7.54	3.20	7.54	3.20	7.57	3.23
500	7.70	3.21	7.64	3.15	7.68	3.19	7.70	3.21
400	7.86	3.07	7.83	3.04	7.83	3.04	7.86	3.07
300	8.02	2.57	7.99	2.54	7.99	2.54	8.02	2.57
200	8.11	2.38	8.08	2.35	8.08	2.35	8.11	2.38
100	8.14	1.87	8.12	1.85	8.11	1.84	8.13	1.86
32	6.54	0.23	6.57	0.26	6.57	0.26	6.57	0.26
8	6.69	0.18	6.71	0.20	6.72	0.21	6.71	0.20
2	8.12	8.12	8.13	8.13	8.13	8.13	8.13	8-13
Ō	9.56	XXXX	9.55	XXXX	9.55	XXXX	9.55	XXXX

TAPE NO. INTERVAL		6.0 HR	277.0 1HR		276.0 1HR		279.0 1HR					
	SOIL TEMPERATURE (DEG C)											
LEVEL(M)	GPAL	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF				
-0.0	6.28	5.38	6-29	5.39	6-28	5.38	6.28	5.38				
-0.125	25.16	0.10	25.16	0.10	25.17	0.11	25.16	0.10				
-0.250	27.47	1.36	27-48	1.37	27.47	1.36	27.48	1.37				
-0.500	26.29	1.29	26.29	1.29	26.28	1.28	26.29	1.29				
-1.000	22.68	1.24	22.68	1.24	22.67	1.23	22.67	1.23				
-2.000	22.56	1-23	22.56	1.23	22.55	1.22	22.56	1.23				
		1	wind sp	EFD (W)	SEC)							
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF				
8	4.95		4.99	3.29	4.99	3.29	5.00	3.30				
2	2.48	1.78	2.50	1-80	2.50	1.80	2.51	1.81				
	S	URFACE	ENERGY	TERMS (	LY/SECI)	(1000						
PARAMETE	R GPAC	DIFF	GPAC	LIFE	GP AC	DIFF	GPAC	DIFF				
5(0)	1.67	0.17	1.66	0.16	1.67	0.17	1.60	0.16				
R(N)	0.02	XXXX	0.02	XXXX	0.02	KKKK	0.02	XXXX				
0(0,0)	-0.11	XXXX	-0.14	XXXX	-0.14	XXXX	-0.14	XXXX				
O(E,O)	0.07	XXXX	0.09	XXXX	0.09	XXXX	0.09	XXXX				
015.01	0.08	XXXX	0.09	XXXX	C.09	XXXX	0.09	XXXX				
	SUR	FACE Sh	EAR STR	ESS 101	NESZUM S	Sulx10						
PAKAMETE	R GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF				
TAU	0.15	XXXX	0.22	XXXX	0.22	XXXX	0.22	XXXX				
	INTEGR	ATED EV	APOTRAN	SPIRATI	CON COMZO	M SQLX	100					
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF				
E	0-20	XXXX	0.20	XXXX	0.20	y X	0.20	XXXX				

## VELOCITY CUMPUNENTS

KICM SG/SEC) 2799 TAPE NO. 283.0 INTERVAL 1HR			284	194 1-0 IR	2794 285.0 1HR		2799 286.0 1HR				
U COMPONENT (M/SEC)											
LEVEL( M)	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF			
GEO	-4.84	0.02	-4.84	0.02	-4.84	0.02	-4.84	0.02			
1000	3.48	0.37	2.46	-0.65	3.46	0.35	3.46	0.35			
900	3.45	1.79	3.39	1.73	3.44	1.78	3.43	1.77			
800	3-41	1.75	3.39	1.73	3.40	1.74	3.40	1.74			
700	3.36	1.62	3.35	1.61	3.35	1.61	3.35	1.61			
600	3-31	1.36	3.30	1.35	3.30	1.35	3.30	1.34			
500	3.19	1.27	3.19	1.20	3.19	1.27	3.19	1.26			
400	2.97	0.59	2 • 96	0.57	2.96	0.57	2.96	0.57			
300	2.61	1.72	2-60	1.71	2.60	1.71	2.60	1.71			
200	2-02*		2-02*	2.74	2.02*		2.02*				
100	1.17*	2.71	1.16*	2.70	1.16*	_	1.16*				
32	0.36*	2.40	C-35*	2.39		2.39	0.36*				
8	0.09*	0.56	0.09*	0.56	0.09*	0.56	0.09*	0.56			
		٧	COMPONE	NT (M/	SEC 1						
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
GEO		3.55	1.77*	3.54	1.78*	3.55	1.77*	3.54			
1000	0.59	-2.11	0.73	-1.97	0.57	-2.12	0.58	-2.12			
900	0.64	-3.11	0-64	-3.11	0.63	-3.13	0.63	-3.13			
800	0.66	-3.10	0-64	-3.11	0.64	-3.11	0.65	-3-11			
700	0.69	-3-03	0.67	-3.05	0.67	-3.05	0.68	-3.05			
600	0.72	-3.47	C.71	-3.49	0.70	-3.49	0.70	-3.49			
500	0.76	-4.00	C. 75	-4.01	0.75	-4.01	0.75	-4.01			
400	0.84	-4.28	0.83	-4.29	0.83	-4.29	0.84	-4.29			
300	0.96	-4.11	0.95	-4.11	0.95	-4.11	0.95	-4.11			
200	1.07	-2.97	1.06	-2.98	i.U0	-2.98	1.06	-2.98			
100	1.17	-1.49	1-16	-1.50	1.17	-1.50	1-16	-1.50			
32	1.12	-2.55	1.11	-2.55	1.11	-2.55	1.12	-2.55			
R	0.92	-0.71	0-91	-0.71	0.91	-0.71	0.92	-0.71			

TAPE NO. INTERVAL	283.0 1HR		28 <b>4.</b> 0 1HR		285.0 1HR		286.0 1HR	
		AI	R TEMPE	RATURE	(DEG C)			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	20.24	0.24	20-17	0.17	20-17	0.17	20.18	0.18
900	21.19	0.19	21.12	0.12	21.11	0.11	21.11	0.11
800	21.90	0.10	21.81	0.01	21.82	0.02	21.81	0.01
700	22.39	0.09	22.32	0.02	22.32	0.02	22.32	0.02
600	22.68	-0.32	22.61	-0.39	22.61	-0.39	22.61	-0.39
500	22.83	-0.67	22.77	-0.73	22.77	-0.73	10.08	-13.42
400	22.82	0.52	22.76	0.46	22.76	0.46	22.74	0-44
300	22.65	0.48	22.64	0.44	22.64	0.44	22.58	0.38
200	22.31	-0.19	22.27	-0.23	24.27	-0.23	22.14	-0.36
100	21.61	2.11	21.58	2.08	21.58	2.08	21.23	1.73
32	20.38	-3.22	20.36	-3.24	20.37	-3.23	19.50	-4.10
8	19.11	-2.89	19.09	-2.91	19.09	-2.91	17.53	-4-47
2	16.68	-4.22	16.67	-4.23	16.67	-4.23	13.55	-7.35
0	14.24	XXXX	14.24	XXXX	14.24	XXXX	9.56	XXXX
			VAPOR P	RESSUR	E (MB)			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	6.65	2.92	6.68	2.95	b. 69	2.96	6.69	2.96
900	6.89	3.01	6.92	3.04	6.92	3.04	6.92	3.04
800	7.08	2.99	7.12	3.03	7.13	3.04	7.12	3.03
700	7.31	3.08	7.33	3.10	7.34	3.11	7.33	3.10
000	7.46	3.12	7.45	3.15	7.49	3.15	7.49	3.15
500	7-63	3.14	7.56	3.17	7.66	3.17	7.66	3.17
400	7.73	2.94	7.76	2.97	7.77	2.98	7.76	2.97
300	7-84	2.39	7.90	2.45	7.89	2.44	7.85	2.40
200	7.92	2.19	7.95	2.22	7.55	2.22	7.90	2-17
100	8.09	1.82	8.12	1.85	8.12	1.85	7.93	1.66
32	8.47	2.16	8.48	2.17	8.48	2.17	8.05	1.74
8	9.18	2.67	9.18	2.67	9.18	2.67	8.39	1.68
2	10.51	10.91	10.51	10.91	10.51	10.91	9.24	9.24
0	12.65	XXXX	12.65	XXXX	12.64	XXXX	10.10	XXXX

TAPE NO. INTERVAL	_	283.0 1HR		14-0 LHR	285.0 1HR		286.0 1HR				
SOIL TEMPERATURE (DEG C)											
TEAET(W)	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF		DIFF			
-0.0	18.15	17.25		17.24	18.14		7.19	6,29			
-0.125	26.19	1.13	26.18	1.12	26.19	1-13	25.21	: .15			
-0.250	27.50	1.39	27.50	1.39	27.50	1.39	27.47	. 36			
-0.500	26.28	1.28	26-28	1.28	26.28	1.28	26.28	1.28			
-1.000	22.67	1.23	22.68	1.24	22.68	1.24	22.68	1.24			
-2.000	26.83	5.50	26.84	5.51	26.84	5.51	22.55	1.22			
WIND SPEED (M/SEC)											
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
8	0.95			-0.75	0.95	-0.75	0.95	-0.75			
2	0.47		0.47		0.47	-0.23	0.47				
	9	SURFACE	ENER GY	TERMS (	LY/SEC)	X1000					
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
SIDA	1.66	0.16	1.66	0.16	1.66	0.16	1.66	0.16			
R(N)	-0.67	XXXX	-0.67	XXXX	-0.61	XXXX	-0.21	XXXX			
Q(C.O)	-0.97	XXXX	-0.96	XXXX	-0.97	XXXX	-1.59	XXXX			
0(E.0)	1.41	XXXX	1.41	XXXX	1.41	XXXX	0.71	XXXX			
0(5.0)	-1.14	XXXX	-1-11	XXXX	-1.11	XXXX	0-68	XXXX			
SURFACE SHEAR STRESS (DYNES/CM SQ)X10											
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
JAU	0.52	x x x <b>x</b>	0.52	XXXX	0.54	XXXX	0.54	XXXX			
	INTEG	RATED EV	/APOTRAN	ISPIRATI	ON LGH/	CM SQ)X	100				
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
E	0.90	XXXX	0.90	XXXX	1.00	XXXX	0.50	XXXX			

## VELOCITY COMPONENTS

KICH SO/S	EC) 27	194	28	04	27	194	28	304			
TAPE NO.		1.0	288		289	.0	290	0.0			
INTERVAL	-	iR	11		16	ır	11	1R			
THI ENT NE											
U COMPONENT (M/SEC)											
LEVEL(N)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
GEQ	-4.84	0.02	-4.84	0.02	-1.74	3.11	-1.74	3.11			
1000	2.48	-0.63	3.48	0.38	3.80	0.69	3.03	-0.08			
900	3-40	1.74	3.45	1.79	3.77	2.11	3.73	2.07			
800	3.41	1.75	3.41	1.75	3.74	2.08	3.74	2.07			
700	3.36	1.62	3.36	1-62	3.69	1.95	3.69	1.95			
600	3.31	1.35	3.31	1.36	3.64	1.68	3.64	1.68			
500	3.20	1.28	3.20	1.28	3.53	1.60	3.53	1.60			
400	2.97	0.58	2.97	0.58	3.30	0.91	3.30				
300	2.60	1.71	2.61	1.72	2.95	2.06	2.94				
20G	2.02*	2.74	2.03*	2.75	2.36*	3.08	2.36*				
100	1-16*	2.70	1.16*	2.70	1.50*	3 - 04	1.50*				
32	0.36*	2.40	0.36*	2-40	0.68*	2.72	0.68*				
8	0.09*	0.56	0.09*	0.56	0.38*	0.85	0.38*	0.85			
		٧	COMPONE	ENT (M/	SEC )						
							5.7.4.6	0.155			
LEVEL(M)	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF	GPAC				
GEO	1.77*	3.54	1.78*		0.11*	1.88		1.88			
1000	0.74	-1.96	0.59	-2.10	1.06	-1.64	1.19	-1.51			
900	0.64	-3.11	0-64	-3.11	1-11	-2.64	1.12	-2-63			
800	0.65	-3.10	0.66	-3.10	1.14	-2.62	1.14	-2.62			
700	0.69	-3.03	0.69	-3.03	1-17	-2.56	1.17	-2.56			
600	0.72	-3.48	0.72	-3.48	1.20	-2.99		-3.05			
500	0.76	-4.01	C.76	-4.00	1.24	-3.52	1.24	-3.52			
400	0.85	-4.27	0.84	-4.28	1.32	-3.80	1.32	-3.80			
300	0.95	-4.11	0.95	-4-11	1-44	-3.63	1.44	-3.62			
200	1.07	-2.97	1.07	-2.97	1.55	-2.49		-2.49			
100	1.17	-1.49	1.17	-1.50	1.45	-1.02	1.65	-1.01			
32	1.11	-2.55	1.11	-2.55	1.58	-2.09		-2.09			
8	0.92	-0.71	0.91	-0.71	1.32	-0.30	1.32	-0.30			

TAPE NO. INTERVAL			288.0 1HR		289+0 1HR		290.0 1HR				
AIR TEMPERATURE (DEG C)											
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	9410			
1000	20.24	0.24	20-25	0.25	20-17	0.17	20.17	0.17			
900	21.18	0.18	21-20	0.20	21.12	0.12	21.12	0.12			
800	21.90	0.10	21.90	0.10	21.82	0.02	21.83	0.03			
700	22.39	0.09	22-41	0-11	22.32	0.02	22-32	0.02			
600	22.68	-0.32	22.68	-0,32	22.62	-0.38	22.62	-0.38			
500	22.82	-0.68	22.82	-0.68	22.76	-0.74	22.76	-0.74			
400	22.81	0.51	22.81	0.51	22.75	0.45	22.74	0-44			
300	22.64	0.44	22.64	0.44	22.59	0.39	22.58	0.38			
200	22.18	-0.32	22.18	-0.32	22.14	-0.36	22.14	-0.36			
100	21.26	1.76	21.26	1.76	21-24	1.74	21.23	1.73			
32	19.52	-4.08	19,53	-4-07	19.51	-4.09	19.51	-4.09			
8	17.54	-4.46	17.54	-4.46	17-53	-47	17.53	-4.47			
2	13.55	-7.35	13.56	-7.34	13.55	-7.35	13.56	-7.34			
0	9.56	XXXX	9.57	XXXX	9.56	XXXX	9.57	XXXX			
			VAPOR P	RESSURE	(MB)						
TEAET(W)	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF	GPAC	DIFF			
1000	6.66	2.93	6-65	2.92	6.69	2.96	6.69	2.96			
900	6.91	3.03	6.88	3.00	6.92	3.04	6.92	3.04			
800	7.10	3.01	7-09	3.00	7.13	3.04	7.12	3.03			
700	7.31		7.31	3.08	7.34	3.11	7.33	3.10			
600	7-47	3.13	7.46	3.12	7.50	3.16	7.49	3.15			
500	7.63	3.14	7.63	3.14	7 • 64	3.15	7.63	3.14			
400	7.72	2.93	7.73	2.94	7.77	2.98	7.76	2.97			
300	7.82	2.37	7.82	2.37	7.86	2.41	7.85	2.40			
200	7.86	2.13	7.86	2.13	7.90	2.17	7.90	2.17			
100	7.92	1.65	7.92	1-65	7.94	1.67	7.93	1.66			
32	8.05	1.74	8.05	1.74	8.06	1.75	8.06	1.75			
8	8.37		8.36	1.85	8.38	1.87	8.37	1.86			
2	9.24		9.23	9.23	9.24		9.24	9.24			
0	10-11	XXXX	10-11	XXXX	10.11	XXXX	10-11	XXXX			

TAPE NO. INTERVAL		287.0 1HR		288.0 1HR		9.0 HR	290.0 1HR				
SOIL TEMPERATURE (DEG L)											
LEVEL(M)	GPAL	DIFF		DIFF		DIFF		DIFF			
-0.0	7.20	6.30	7.20	6.30			7.11	6.21			
-0.125	25.21	0.15				0.15		0.15			
-0.250		1.36	27.47								
-0-500	26.28	1.28	26.29	1.29	26.29	1.29		1.29			
-1.000	22.67	1.23	22-67	1.23	22.67	1.23	22.68	1.24			
-2.000	22.57	1.24	22-56	1.23	22.56	1.23	22.56	1.23			
			wIND SE	PEED (M	(SEC)						
LEVEL(N)	GPAC	UIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
8	0.95	-0.75	0.95	-0.75	1.40	-0.30	1.40	-0.30			
2	0.48	-0.22	C-47	-0.23	0.70	0.00	0.70	0.00			
	:	SURFACE	ENERGY	TERMS	LLY/SEC)	X1000					
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
S(D)	1.66	0.16	1.66	0.16	1.66	0.16	1.66	0.16			
RINI	-0.20	XXXX	-0-21	XXXX	-0.20	XXXX	-0.21	XXXX			
410.01	-1.59	XXXX	-1.59	XXXX	-1.59	5 <b>XX</b>	-1.59	XXXX			
0(8.0)	0.71	XXXX	0.72	XXXX	0.71	XXXX	0.71	XXXX			
	0.68	XXXX	0.68	XXXX	80.0	XXXX	0.68	XXXX			
	Su	RFACE SH	EAR STR	RESS (D)	The S/CM	201XT0					
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF			
IAU	0.54	XXXX	0.54	XXXX	0.82	XXXX	0.82	XXXX			
	INTEG	RATED EV	APOTRAN	SP IRAT	ION (GM/	CH SQLX	100				
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF			
E	0.50	XXXX	0.50	XXXX	0.60	XXXX	0.50	XXXX			

CASE DPG 4 TAPE LUG

TAPE Nú.	FCST Int	SM	KM8 D8	SCG	ADV	GEÜ	REMARKS
294. 295.	12 12	A	٧	A A	N N	G I	NONE NONE
296.	12	A	V	A	F	Ō	NONE
303.	12	В	F	A	N	Ü	NONE
304.	12	8	F	A	F	I	NUNE
305.	12	В	F	A	F	۵	NONE
300.	12	A	F	Α	F	O	NÚNE
307.	12	A	F	A	N	1	NONE
308.	12	A	F	Α	N	۵	NONE
309.	12	Α	F	F	F	C	NONE
310.	12	A	F	F	F	I	NONE
311.	12	A	F	F	N	C	NONE
316.	6	A	¥	F	N	Ō	NONE
317.	6	A	V	F	N	1	NONE
318.	6	A	٧	F	F	O	NONE
322.	6	B	F	A	N	Ö	NONE
323.	6	8	f	A	F	1 0	ANGN PAON
324.	6	B	F	A	F	0	NONE
325. 326.	<b>6</b>	A A	F	A	N	I	NONE
327.	6	A	F	A	N	ů	NONE
328.	6	A	F	F	F	Ü	NONE
329.	6	Ã	F	ř	F	Ĭ	NONE
330.	6	Á	F	F	N	ō	NUNE
332.	2	Ā	v	Ā	N	ő	NONE
333.	2	Ā	v	Ā	N	Ĭ	NUNE
334.	2	A	v	A	£.	Ü	NONE
335.	2	A	Ÿ	F	N	O	NONE
336.	2	Α	٧	F	N	1	NONE
337.	2	A	٧	F	F	Ú	NUNE
<b>338.</b>	2	ಕ	¥	F	F	Ü	NONE
319.	2	В	V	F	N	1	NOHE
340.	2	ь	V	F	N	ũ	NUNE
341.	2	8	F	Α	N	Ü	NŪNE
342.	2 2	В	F	Α	F	I	NONE
343.	2	В	F	Α	F	Ü	NONE
344.	2	Α	F	A	F	O	NONE
345.	2	Α	F	Α	N	I	NONE
346.	2	A	F	A	N	Ú	NONE
347.	2	A	F	F	F	ΰ	NONE

LASE UPG 4 TAPE LOG

NU.	1N1	SM	KM8 D8	SUG	AUV	GEÜ	REMARKS
J48.	2	A	F	F	F	I	NONE
349.	2	A	F	£	N	0	NONE
351.	1	Α	V	Α	N	نا	NONE
352.	1	A	٧	A	N	I	NUNE
353.	1	A	٧	Α	F	Ü	NGNE
. 354.	1	Α	٧	F	N	ũ	NONE
355.	1	A	٧	F	N	I	NONE
356.	1	A	٧	F	F	Ü	NONE
357.	1	B	<b>V</b>	F	F	Ú	NUNE
358.	1	Б	¥	F	N	I	NONE
359.	1	В	٧	F	N	Ð	NONE
360.	1	В	F	Α	N	Ú	NONE
361.	1	ь	F	Α	F	1	NONE
362.	1	ь	F	Α	F	ົບ	NONE
363.	1	A	F	A	F	زآ	NONE
364.	1	A	F	A	N	I	NONE
365.	1	A	ŕ	A	N	Ü	NONE
366.	1	A	F	F	F	ü	NUNE
367.	1	Α	F	F	۴	I	NONE
368.	1	A	F	F	N	Ü	NONE

# DPG 04 INITIAL CONDITIONS - 0400C 15 AUGUST 1969 (page 1 of 2 pages)

### SOIL PARAMETERS

$$T_0^t = 14.34 \, ^{\circ}C$$
  $T_{-1}^t = 20.72 \, ^{\circ}C$   $\sqrt{\mu\lambda} = 0.036 \, \text{cal/cm}^4 \text{deg}^2 \text{sec}$ 

$$T_{-1/8}^{t} = 25.89 \text{ °C}$$
  $T_{-2}^{t} = 20.61 \text{ °C}$   $Z_{0} = 2.0 \text{ cm}$ 

$$T_{-1/4}^{\dagger} = 26.00 \text{ °C}$$
  $\lambda = 0.59 \text{ cal/cm}^3 \text{deg}$   $S_0 = .0004 \text{ cal/cm}^2 \text{sec mb}$ 

$$T_{-1/2}^{1} = 24.17 \, ^{\circ}C$$
  $\mu/\lambda = .0037 \, \text{cm}^{2}/\text{sec}$   $G = 3500 \cdot \text{cm}^{2}\text{sec deg/cal}$ 

## RADIATION PARAMETERS

Local 
$$e_8^1 = 6.91 \text{ mb}$$
  $F_c = 0.93$  Time = 0400 C

$$\epsilon = 0.950$$
 j = 0.26

$$\delta = 14.354 \text{ deg}$$
 $\phi = 40.2 \text{ deg}$ 
 $m = 0.620$ 

$$R \times 10^5 = 1.74$$
 °C/sec  $N = 0.26$   $n = .0415$  mb<sup>-1/2</sup>

Cloud Class = 1 
$$\psi = 0.976$$
 H = -105.0 deg

### HORIZONTAL GRADIENTS

$$\frac{\partial e}{\partial x_{200}} = 0.33 \text{ mb/100 km} \qquad \frac{\partial e}{\partial x_{600}} = 0.27 \text{ mb/100 km} \qquad \frac{\partial e}{\partial x_{1000}} = 0.21 \text{ mb/100 km}$$

$$\frac{\partial e}{\partial y_{200}} = -0.08 \text{ mb/100 km} \qquad \frac{\partial e}{\partial y_{600}} = -0.22 \text{ mb/100 km} \qquad \frac{\partial e}{\partial y_{1000}} = -0.36 \text{ mb/100 km}$$

$$\frac{\partial T}{\partial x_{200}} = -0.08 \text{ °C/100 km} \qquad \frac{\partial T}{\partial x_{600}} = -0.01 \text{ °C/100 km} \qquad \frac{\partial T}{\partial x_{1000}} = 0.06 \text{ °C/100 km}$$

$$\frac{\partial T}{\partial y_{200}} = 0.30 \text{ °C/100 km} \qquad \frac{\partial T}{\partial y_{600}} = 0.18 \text{ °C/100 km} \qquad \frac{\partial T}{\partial y_{1000}} = 0.96 \text{ °C/100 km}$$

DPG 04 INITIAL CONDITIONS - 0400C 15 AUGUST 1969 (page 2 of 2 pages)

WIND COMPONENTS (m/sec	2)	TEMPE	RATURE (°C	C) VAPOR	PRESSURE (mb)
u <sub>8</sub> = -0.30 v <sub>8</sub>	= 2.48	T <sub>8</sub>	= 21.80	e <sub>8</sub>	= 6.91
u <sub>32</sub> = -3.52 v <sub>32</sub>	= 3.40	T <sub>32</sub>	= 24.60	e <sub>32</sub>	= 6.81
u <sub>100</sub> = 1.60 v <sub>100</sub>	- 3.78	T <sub>100</sub>	= 25.47	e 100	<b>=</b> 15.95
u <sub>200</sub> = 1.54 v <sub>200</sub>	= 1.67	T <sub>200</sub>	= 26.61	e <sub>200</sub>	<b>-</b> 15.65
u <sub>300</sub> = 2.89 v <sub>300</sub>	= 2.03	T <sub>300</sub>	<b>26.9</b> 0	e <sub>300</sub>	= 14.99
u <sub>400</sub> = 2.95 v <sub>400</sub>	= 2.07	T <sub>400</sub>	= 26.18	e <sub>400</sub>	= 14.66
u <sub>500</sub> = 2.95 v <sub>500</sub>	<b>- 2.07</b>	T <sub>500</sub>	= 25.66	e <sub>500</sub>	<b>=</b> 13.99
u <sub>600</sub> = 2.95 v <sub>600</sub>	0 = 2.07	T <sub>600</sub>	= 25.01	<b>e</b> 600	
u <sub>700</sub> = 2.95 v <sub>700</sub>	0 = 2.07	τ <sub>700</sub>	= 24.37	<sup>e</sup> 700	
u <sub>800</sub> = 2.95 v <sub>80</sub>	0 = 2.07	T <sub>800</sub>	<b>= 23.8</b> 5	<sup>e</sup> 800	
u <sub>900</sub> = 2.95 v <sub>90</sub>	0 = 2.07	<sup>T</sup> 900	= 23.08	<sup>e</sup> 900	
u <sub>1000</sub> = 2.95 v <sub>10</sub>	00 = 2.07	T <sub>1000</sub>	= 22.52	<sup>e</sup> 100	0 = 11.73
ADVECTION TERMS (sec	1)				
$\alpha_{200}^{1}$ -0.03 x $10^{-5}$	$a_{600}^{1} -0.$	08 x 1	o <sup>-5</sup> «	1 1000-0.13	x 10 <sup>-5</sup>
$\beta_{200}^{1} = -0.00 \times 10^{-5}$	$\beta_{600}^{1} - 0.$	01 x 1	0 <sup>-5</sup>	β <sup>1</sup> 1000-0.02	x 10 <sup>-5</sup>
$\alpha_{200}^{2} = 0.11 \times 10^{-5}$	$a_{600}^2 = 0.3$	33 x 1	0-5	α <sup>2</sup> 100000.56	x 10 <sup>-5</sup>
$\beta_{200}^{2}$ 1.31 × 10 <sup>-5</sup>	8 <sub>60</sub> 0 0.	84 x 1	.0 <sup>-5</sup>	$^{\beta_{1000}^{2}}$ 0.38	x 10 <sup>-5</sup>
CONTOUR GRADIENT TER	MS				
0 hour	1 hour 2	hour	6 hour	12 hour	,
Azimuth 197.	40. 5	0.	90.	160.	(deg from North)
Magnitude 5.52	42.82 4	1.18	32.94	32.94	(ft/100 km)

## CASE EPG 4 CUMPARISON DATA FROM DEGWAY ( I HOUR )

		UMPUNENTS I /SEC) V	EMPERATURE (DEG C)	VAPUR PRESSURE (MB)
GEO	-10.42	٤.74		
1000	3.60	0.0	∠3.10	11.78
900	3.98	1.07	24.00	12.13
800	3.07	1.41	24.90	12.63
700	3.26	1.52	25.50	13.08
600	2.53	1.77	26.10	12.38
500	-1.06	2.90	26.8C	13.77
400	1.54	2.67	27.20	14.09
300	1.06	2.40	27.80	14.50
200	2.90	1-06	27.00	13.08
100	2.90	-1.06	24.90	9.98
32	-0.58	4.16	23.60	6.71
8	0.45	2.86	22.00	0.67
2	0.27	1.68	20.90	XXXX
o	XXXX	XXXX	XXXX	XXXX
SOIL TE	MPEKATU	RE (DEG L)	MINL S	PEED (M/SEC)
-0.0		19.00	ધ	2.90
-0.125	ı	23.61	2	1.70
-0.250	1	23.94		
-0.500	)	22.22	SURF ALE	SHEAR STRESS
-1.000	•	19.00	(DYNES	/LM SU-1X10
-2.000	)	18.78	140	;=
		SURFACE ENERGY	TERMS (LY/SEC	. 1 X 1 O O O

### SURFACE ENERGY TERMS (LY/SEC)X1000

S(D) =	0.90	U(E,0)=	XXXX
R(N)=	XXXX	0(5,0)=	XXXX
C(C.O)=	XXXX		

INTEGRATED EVAPOTRANSPIRATION (GM/CM 54.) x100

## CASE DPG 4 COMPARISON DATA FROM DUGMAY ( 2 HOUR )

		OMPUNENTS /SEC) V	TEMPERATURE	VAPOR PRESSURE
	0 (1)	/ JLC / V	(020 07	
GEO	-8.41	10.02		
1000	4.63	0.C	21.60	10.85
900	3.59	0.31	22.40	11-24
೮೦೦	3.04	0.54	23.30	11.51
700	3.38	1.23	24.50	12.27
600	3.37	2.36	25.70	13.08
500	3.64	3.64	20.10	13.38
400	3.25	4.64	26.30	13.70
300	1.20	4.47	20.90	14-01
200	-0.31	3.59	25.40	12.27
	-0.87	1.87	23.60	9.63
	-0.87	2.66	24.70	0.97
벙	-0.70	1.66	24.50	7.10
2	-0.67	0.99	23.90	XXXX
0	XXXX	XXXX	XXXX	XXXX
SOIL IE	MPEKATU	RE (DEG L)	WIND	SPEED (M/SEC)
-0.0		17.50	ઇ	1.80
-0.125		22.50	2	1.20
-0.250		22.94		
-0.500		21.39	SURFAC	E SHEAR STRESS
-1.000		18.17	IDAVE	S/CM 5C.1X10
-2.000		18.00	AI	U= XXXX
		SURFACE ENERG	Y TERMS (LY/SE	C1x1000

S(D) =	5.0C	J(E,0)=	XXXX
RINI =	XXXX	<b>↓(S,0)</b> =	XXXX
616-01=	XXXX		

INTEGRATED EVAPOTRANSPIRATION (GM/CM SQ.) X100

# CASE DPG 4 COMPARISON DATA FROM DUGWAY ( 6 HOUR )

	WIND COMP		TEMPERATURE (DEG C)	VAPOR PRESSURE
GEO	0.0	10.46		12.34
1000	1.46	1.46	23.00	12.78
900	1.46	1.46	24.00	
800	1.58	1.32	24.90	13.46
700	2.37	1.98	25.80	14.17
600	2.37	1.98	26.50	14.92
500	2.95	2.07	27.30	15.52
400	2.95	2.07	28.20	16.15
300	3.56	2.06	29.00	16.89
200	2.65	3.15	30.00	17.76
100	1.41	3.87	31.70	18-88
32	1.74	1.17	34.60	8.75
32 8	2.09	-0.18	34.00	8.43
2	1.53	0.75	32.20	XXXX
0	XXXX	XXXX	XXXX	XXXX
_	MPERATURE	(DEG C)	wIND	SPEED (M/SEC)
		62.43	8	2.10
-0.0		52.60	2	1.70
-0.12		20.79	-	
-0.25	_	20.83	STREAC	E SHEAR STRESS
-0.50	0	19.72	SOR W	S/CM SG. 1 X10
-1.00		16.56		AU≈ XXXX
-2.00	0	16-44	•	
	:	SURFACE ENE	RGY TERMS LLY/SI	EC1X1000
	6101-	19.50	Q(E,0)=	XXXX
	S(D)= R(N)=	XXXX	4(5,0)	<b>= XXXX</b>
		XXXX		
	Q(C.O)=	4444		

INTEGRATED EVAPOTRANSPIRATION (GM/CM SQ.1X100

E= XXXX

#### CASE CPG 4 CUMPARISON DATA FRUM DUGWAY ! 12 HOUR 1

		MPONENTS		
	U (M/	SEC) V	(DEG C)	(MB)
GEO	9.83	3.58		
1000	3.76	3.51	27.00	15.44
900	3.64	3.64	28.00	16.33
800	2.88	4.27	29.00	16.99
700	2.34	4.58	30.00	17.76
600	2.09	4.70	31-00	18.77
500	2.17	4.66	32.10	19.62
400	2.60	5.00	33.00	11.58
300	3.44	5.73	34.10	12.06
200	2.48	5.09	34.80	15.88
100	0.88	4.55	35.30	12.13
32	1.31	3.25	37.90	7.37
8	0.85	3.40	37.30	6.93
2	0.24	2.69	36.40	XXXX
0	XXXX	XXXX	XXXX	XXXX
SULL TE	MPERATUR	E (DEG C)	WIND	SPEED (M/SEC)
-0.0		41.70	b	3.50
-0.125		24.11	2	2.70
-0.250		21.78	_	
-0.500		19.83	SURFAC	E SHEAR STRESS
-1.000		16.67	LUYNE	S/CM SQ.1X10
-2.000		16.56		U= XXXX

#### SURFACE ENERGY TERMS (LY/SEC)X1000

S(U)=	5.00	U(E,0)=	XXXX
R(N)=	XXXX	C(5,0)=	XXXX
$G(C_*O) =$	***		

INTEGRATED EVAPOTRANSPIRATION (GM/CM SQ.1X100

E= XXXX

KICH SU/S	ECJ 9	779		584	9764		10689					
TAPE NO.	29	4.0	29	5.0	296.0		303.0					
INTERVAL	12	HR	121	HR	12HR		12	HR				
U COMPONENT (M/SEC)												
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF				
GŁ O	9.82	-0.01	9.83	-0.00	9.82	-0.01	9.82	-0.01				
1000	6.32	2.56	7.27	3.51	6.30	2.55	6.68	2.92				
900	6.14	2.51	6.40	2.77	6.13	2.49	6.59	2.95				
800	5.96	3.09	6-09	3.22	5.96	3.09	6.46	3.58				
700	5.80	3.47	5.88	3.55	5.80	3.47	6.30	3.96				
600	5.64	3.56	5.69	3.61	5.63	3.55	6.13	4.05				
500	5.47	3.30	5-51	3.34	5.46	3.30	5.95	3.79				
400	5.27	2.61	5.31	2.65	5.27	2.61	5.75	3.09				
300	5.06	1.62	5.09	1.65	5.05	1.61	5.52	2.08				
200	4.77	2.30	4.79	2.31	4.77	2.29	5.22	2.74				
100	4.36	3.48	4-37	3.49	4.36	3.48	4.77	3.89				
32	3.72	2.41	3.75	2.44	3.73	2.42	4-09	2.78				
8	3.01	2.16	3.02	2.17	3.01	2.16	3-30	2.45				
		٧	COMPON	ENT (M/	SEC)							
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF				
GEO	3.59	0.01	3.59	0.01	3.59	9.01	3.59	0.01				
1000	7.42	3.91	6.53	3.03	7.38	3.87	7-16	3.66				
900	7.61	3.97	7.19	3.56	7.57	3.94	7.35	3.72				
800	7.66	3.39	7.39	3.12	7.63	3.36	7.41	3.15				
700	7.68	3.10	7.47	2.89	7.65	3.07	7.43	2.85				
600	7.66	2.97	7.49	2.80	7.64	2.94	7.42	2.72				
500	7.61	2.95	7.47	2.81	7.59	2.93	7.37	2.72				
400	7.53	2.53	7.40	2.40	7.52	2.52	7.30	2.30				
300	7.41	1.68	7.30	1.57	7.39	1.66	7.18	1.45				
200	7.19	2.11	7-10	2.02	7.18	2.10	6.97	1.89				
100	6.79	2.24	6.71	2.16	6.78	2.24	6.58	2.03				
32	6.01	2.76	5.95	2.70	6.01	2.76	5.81	2.56				
8	4.95	1.55	4.89	1.49	4.93	1.53	4.77	1.37				

TAPE NO. INTERVAL		94•0 2HR		95.0 2HR		96•0 2HR		03.0 2HR
		A	R TEMP	ERATURE	10E6 C	)		
LEVEL(M)	GPAL	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF
1000	26.57	-6.43	26.57	-0.43	26.58	-0.42	25.90	-1.10
900	26.91	-1.09	26.90	-1.10	26.53	-1.07	26.33	-1.67
800	27.04	-1.96	27.03	-1.97	27.06	-1.94	26.51	-2.49
700	27.13	-2.87	27.12	-2.88	27.17	-2.83	26.65	-3.35
600	27.19	-3.81	27.18	-3.82	27.22	-3.78	26.73	-4.27
500	27.24	-4.80	27.23	-4.87	27.27	-4.83	26.81	-5.29
400	27.24	-5.76	27.24	-5.76	27.26	-5.72	26-84	-6.16
300	27.25	-6.85	27.25	-6.85	27.29	-6.81	26.87	-7.23
200	27.22	-7.58	27.22	-7.58	27.26	-7.54	26.86	-7.94
100	27.13	-8.17	27.14	-8-16	27-17	-8.13	26.82	-8.48
32	26.90	-11.00	26.90	-11.00	26.93	-10.97	26.62	
8	26.59	-10.71	26.58	-10.72	26.61	-10.69	26.36	-10.94
2	25.80	-10.54	25.85	-10.55	25.88	-10.52		-10.63
U	24.95	XXXX	24.95	XXXX	24.97	XXXX	25.01	XXXX
			VAPUR F	PRESSURI	(MB)			
LEVEL(M)	GPAC	UIFF	GPAC	DIFF	GPAC	01FF	GPAC	DIFF
1000	15.81	0.37	15.77	0.33	15.84	0.40	15.99	0.55
900	16.55	0.22	16.51	0.18	15.61	0.28	16.87	0.54
800	17.05	0.06	17.02	0.03	17.11	0.12	17.43	0.44
700	17.51	-0.25	17.49	-0.27	17.58	-0.18	17.93	0.17
600	17.90	-0.87	17.90	-0.87	17.98	-0.79	18-36	-0.41
500	18.33	-1.29	18.32	-1.30	18.42	-1.20	18.80	-0.82
400	13.72	7.14	18.72	7.14	18.82	7.24	19.21	7.63
300	19.16	7.10	19-16	7.1C	19.26	7.20	19.65	7.59
200	19.60	3.72	19.60	3.72	19.71	3.83	20.09	4.21
100	20.21	8.08	20.21	8.08	20.32	8.19	20.69	8.56
32	20.85	13.48	20.84	13.47	20.95	13.58	21.29	13.92
8	21.45	14.52	21.45	14.52	21.55	14.62	21.86	14.93
2	22.44	22.44	22.45	22.45	22.54	22.54	22.73	22.73
ō	23.68	XXXX	23.69	XXXX	23.77	XXXX	23.87	XXXX

TAPE NO. INTERVAL		94.0 2hR		5-0 HR		6.0 Hr		03.0 2HR				
		* * *	. 76456	0.4.7	1 DEC ( )							
SUIL TEMPERATURE (DEG C)												
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF				
-0.0	26.73	-14.97	26.73	-14.97	26.73	-14.97	27.16	-14.54				
-0.125	25.21	1.10	25.21	1.10	25.21	1-10	26.22	2.11				
-0.250	24.95	3.17	24.94	3.16	24.95	3.17	25.42	3.64				
-0.500	23.97	4-14		4.14		4.14		4.19				
-1.000	20.87	4.20	20.86	4.19	20.86	4.19	20.97	4.30				
-2.000	20.62	4.06	20.62	4.06	20.61	4.05	25.89	9.33				
			wIND SP	EED (M	SECI							
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF				
8	5.79	2.29	5.75	2.25			5.81	2.31				
2	3.21	0.51			3.21							
	:	SURFACE	ENERGY	TERMS (	LLY/SEC1	X1000						
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF				
SIDI	5.50	0.50	5.50	0.50	5.53	0.53	5.55	0.55				
R(N)	1.51	XXXX	1.52	XXXX	1.50	XXXX	1.49	XXXX				
9(0.0)	-1.12	XXXX	-1.11	XXXX	-1.12	XXXX	-1.02	XXXX				
Q1E.01	3.16	XXXX	3.15	XXXX	3.14	XXXX	3.13	XXXX				
0(5.0)	-0.50	XXXX	-0.51	XXXX	-0.50	XXXX	-0.61	XXXX				
	SU	REACE SH	EAR STR	iess (b)	rnes/cm	SQ1X10						
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF				
I AU	11.96	XXXX	11.76	XXXX	11.92	XXXX	13.12	XXXX				
	INTÉG	RATED EV	APOTRAN	SPIRAT	ION (GM/	CM SQ)X	100					
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF				
٤	37.10	XXXX	37.10	XXXX	37.00	XXXX	40.50	XXXX				

## CASE LPG 4 GPAC GUIPUI DATA

GEC 9.82 -0.01 9.82 -0.01 9.82 -0.01 9.82 -0.01  1000 7.48 3.73 6.66 2.91 6.66 2.90 7.51 3.76  900 6.80 3.16 6.58 2.94 6.57 2.94 6.82 3.11  800 6.54 3.66 6.44 3.56 6.43 3.56 6.56 3.66  700 6.35 4.02 6.29 3.95 6.29 3.95 6.36 4.0  600 6.17 4.08 6.13 4.04 6.12 4.04 6.18 4.00  500 5.98 3.81 5.95 3.79 5.95 3.79 5.99 3.8  400 5.77 3.11 5.75 3.09 5.74 3.09 5.78 3.1.  200 5.23 2.76 5.22 2.74 5.21 2.73 5.24 2.7  100 4.78 3.90 4.77 3.89 4.76 3.88 4.78 3.99  8 3.31 2.46 3.30 2.45 3.30 2.45 3.31 2.46  V COMPONENT (M/SEL)  LEVELIM) GPAC DIFF G	K(UM SE/S Tape ND. Interval		689 4.0 hk	30	689 5.0 HR	0 ق	689 6.0 HR	10694 307.0 12HR						
GEC 9.82 -0.01 9.82 -0.01 9.82 -0.01 9.82 -0.01  1000 7.48 3.73 6.66 2.91 6.66 2.90 7.51 3.76  900 6.80 3.16 6.58 2.94 6.57 2.94 6.82 3.11  800 6.54 3.66 6.44 3.56 6.43 3.56 6.56 3.66  700 6.35 4.02 6.29 3.95 6.29 3.95 6.36 4.0  600 6.17 4.08 6.13 4.04 6.12 4.04 6.18 4.00  500 5.98 3.81 5.95 3.79 5.95 3.79 5.99 3.8  400 5.77 3.11 5.75 3.09 5.74 3.09 5.78 3.1.  200 5.23 2.76 5.22 2.74 5.21 2.73 5.24 2.7  100 4.78 3.90 4.77 3.89 4.76 3.88 4.78 3.99  8 3.31 2.46 3.30 2.45 3.30 2.45 3.31 2.46  V COMPONENT (M/SEL)  LEVELIM) GPAC DIFF G		U COMPONENT (M/SEC)												
8 3.31 2.46 3.30 2.45 3.30 2.45 3.31 2.46  V COMPGNENT (M/SEC)  LEVELIM) GPAC DIFF GPAC DIFF GPAC DIFF GPAC DIFF GEO 3.59 0.01 3.59 0.01 3.59 0.01 3.59 0.01 3.59 0.01 1000 0.20 2.76 7.12 3.62 7.12 3.62 6.29 2.7 900 6.71 3.28 7.31 3.68 7.31 3.68 6.95 3.3 800 7.12 2.85 7.38 3.11 7.38 3.11 7.15 2.8 700 7.21 2.63 7.40 2.82 7.41 2.83 7.24 2.6 600 7.24 2.54 7.40 2.70 7.40 2.70 7.26 2.5 500 7.22 2.56 7.35 2.69 7.35 2.69 7.24 2.5 400 7.17 2.17 7.28 2.28 7.28 2.28 7.18 2.1 300 7.06 1.34 7.16 1.44 7.16 1.43 7.08 1.3 200 6.87 1.78 6.96 1.87 6.96 1.87 6.88 1.8 1.00 6.48 1.94 6.57 2.02 6.56 2.02 6.50 1.9	GEU 1000 900 800 700 600 500 400 300 200 100	9.82 7.48 6.80 6.54 6.35 6.17 5.53 5.23 4.78	-0.01 3.73 3.16 3.66 4.02 4.08 3.81 3.11 2.10 2.76 3.90	5.82 6.58 6.44 6.29 6.13 5.95 5.75 5.52 5.22 4.77	-0.01 2.91 2.94 3.56 3.95 4.04 3.79 3.09 2.08 2.74 3.89	9.82 6.60 6.57 6.43 6.29 6.12 5.95 5.74 5.51 5.21	-0.01 2.90 2.94 3.50 3.95 4.04 3.79 3.09 2.07 2.73 3.88	9.82 7.51 6.82 6.56 6.36 6.18 5.99 5.78 5.54 5.24	DIFF -0.01 3.76 3.19 3.69 4.03 4.09 3.83 3.12 2.10 2.76 3.90 2.80					
LEVELIMI GPAC DIFF GPAC DIFF GPAC DIFF GPAC DIFF GEO 3.59 0.01 3.5			2.46	3.30	2.45	3.30	2.45	3.31	2.46					
6EQ         3.59         0.01         3.68         2.71         2.02         3.08         3.31         3.68         6.95         3.31         3.68         6.95         3.31         3.68         6.95         3.31         3.68         6.95         3.31         3.68         6.95         3.31         3.68         6.95         3.31         3.11         7.15         2.88         3.11			٧	COMPON	ENT (M/	SEC.)								
3/ 3-43 /-30 3-00 /-32 J-00 /-07J J-4J /-3	6E0 1000 900 800 700 600 500 400 300 200	3.59 6.20 6.71 7.12 7.21 7.24 7.22 7.17 7.00 6.87	0.01 2.76 3.28 2.85 2.63 2.54 2.56 2.17 1.34 1.78	3.59 7.12 7.31 7.38 7.40 7.40 7.35 7.28 7.16 6.96	0.01 3.62 3.08 3.11 2.82 2.70 2.69 2.28 1.44 1.87	3.59 7.12 7.31 7.38 7.41 7.40 7.35 7.28 7.16	0.01 3.62 3.68 3.11 2.83 2.70 2.69 2.28 1.43 1.87	3.59 6.29 6.95 7.15 7.24 7.26 7.24 7.18 7.08 6.88	D1FF 0.01 2.78 3.31 2.89 2.66 2.56 2.39 2.18 1.35 1.80 1.95 2.50					

TAPE NO. INTERVAL		4.0 HR	30 12	5 • 0 HR		6.0 HR		7.0 HR
		AI	R TEMPE	RATURE	(DEG C)			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF
1000	25.92	-1.08	25.92	-1.08	25.66	-1.34	25.63	-1.37
900	26.35	-1.65	26.36	-1.64	26.09	-1.91	26.06	-1.94
800	26.55	-2.45	26.56	-2.44	26.28	-2.72	26.25	-2.75
700	26.68	-3.32	26.69	-3.31	26.41	-3.59	26.37	-3.63
600	26.77	-4.23	26.77	-4.23	26.50	-4.50	26.45	-4.55
500	26.85	-5.25	26.85	-5.25	26.57	-5.53	26.53	-5.57
400	26.90	-6.10	26.90	-6.10	26.61	-6.39	26.56	-6.44
300	26-91	-7.19	26.93	-7.17	26.64	-7.46	26.60	-7.50
200	26.91	-7.89	26.91	-7.89	26.64	-8.16	26.59	-8.21
100	26.86	-8.44	26.86	-8.44	26.58	-8.72	26.54	-8.76
32	26.65	-11.25		-11.25		-11.51	26.34	-11.56
8	26.41	-10.89	26.41	-10.89		-11.i5	26.11	-11.19
2	25.82	-10.58				-10.82		-10.85
0	25.05	XXXX	25.02	XXXX	24.84	XXXX	24.81	XXXX
			VAPOR P	PRESSURI	E (MB)			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	16.01	0.57	16.01	0.57	15.82	0.38	15.75	0.31
900	16.91	0.58	16.92	0.59	16.71	0.38	16.64	0.31
800	17.49	0.50	17.50	0.51	17.27	0.28	17.19	0.20
700	17.99	0.23	17.99	0.23	17.76	0. C	17.67	-0.09
600	18.43	-0.34	18.43	-0.34	18.20	-0.57	18.09	-0.68
500	18.88	-0.74	18.89	-0.73	18.64	-0.98	18.53	-1.09
400	19.29	7.71	19.29	7.71	19.04	7.46	18.93	7.35
300	19.75	7.65	19.76	7.70	19.49	7.43	19.37	7.31
200	20.19	4.31	20.20	4.32	19.92	4.04	19.81	3.93
100	20.79	8.66	20.79	8.66	20.52	ช.39	20.39	8.26
32	21.39	14.02	21-40	14.03	21.12	13.75	20.99	13.62
8	21.95	15.02	21.95	15.02	21.60	14.73	21.55	14.62
2	22.86	22.82	22.82	22.62	22.52	22.52	22.41	22.41
Ü	23.90	XXXX	23.96	XXXX	23.64	XXXX	23.54	XXXX

				1			•					
TAPE NO.	30	4.0	30	25.0	30	06.0	3 (	7.0				
INTERVAL	12	HR		2HR		HR		2HR				
SOIL TEMPERATURE (DEG C)												
LEVEL(M)		DIFF			GPAC	DIFF	GPAC	DIFF				
-0.0				-14.53		-14.75	26.93	-14.77				
~0.125	26.23		26.22	2.11		1.34	25.45	1.34				
-0.250	25.42	3.64	25.42	3.64	25.04	3.26	25.04	3.26				
-0.500	24.02	4.19	24.02	4.19	23.98	4.15	23.99	4.16				
-1.000	20.96	4.29	20.96	4-29	20.87	4.20	20.86	4.19				
-2.000	25.89	9.33	25.88	9.32	20.61	4.05	20.62	4.06				
			WIND SE	PEED (M)	SEC 1		•					
TEVET(W)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF				
8	5.77	2.27	5.80	2.30	5.80	2.30						
2	3.26	0.56	3.28	0.58	3.29	0.59	3.28	0.58				
	S	URFACE	ENERGY	TERMS (	LY/SEC	X1000						
PARAMETER	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF				
SIDI	5.56	0.56	5.51	0.51	5.55	0.55	5.55	0.55				
R(N)	1.49	XXXX	1.46	XXXX	1.49	XXXX	1.49	XXXX				
O(C,O)	-1.01	XXXX	-1.02	XXXX	-0.98	XXXX	-0.98	XXXX				
O(E.O)	3.12	XXXX	3.11	XXXX	3.09	XXXX	3.10	XXXX				
015.01	-0.60	XXXX	-0.61	XXXX	-0.60	XXXX	-0.61	XXXX				
	SUR	FACE SH	EAR ST	RESS (D)	/NES/CM	SQ1X10						
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF				
TAU	13-04	XXXX	13.12	XXXX	13.12	XXXX	13.06	XXXX				
	INTEGR	ATEU EV	APOTRA	NSPIRAT	LON (GM)	CM SQLX	100					
PARAMETE.	R GPAC	DIFF	GP A C	DIFF	GPAC	DIFF	GPAC	DIFF				
ε	40.30	XXXX	40.40	XXXX	38.30	XXXX	38.40	XXXX				

## VELCCITY COMPUNENTS

	-C 1 104	L 0	106	89	100	89	106	89				
KICH SU/SE	501 100	<b>0 9</b>	309		310	0.0	311	• 0				
TAPE NO.	305		12F		126	IR	12H	IR .				
INTERVAL	12H	K	121	110								
	U COMPONENT (M/SEL)											
						STEE	GPAC	ATEE				
LEVEL(M)	GPAC	DIFF	GPAC		GPAC		1.67					
GEO	9.82	-0.01	1.67		1.67		-1.19*					
1000	6.68	2.93	-1.04*		-0.26*		-G.81*					
900	6.59	2.95	-C.69*		-0.59*							
800	6.45	3.58	-C.53*		-0.33*	-3-21	-0.64*					
700	6.3C	3.97	-0.44*		-0.27*		-0.53*					
600	6.14	4.05	-0.37*	-2.46	-0.22*		-0.45*					
500	5.96	3.79	-0.31*	-2.48	-0.18*		-0.38*					
400	5.76	3.10	-0.26*	-2.92	-0.14*		-C.34*					
300	5.52	2.09	-0.22*	-3.66	-0.11*		-0.29*					
200	5.22	2.74	-0.19*	-2.67	-0.09*		-0.25*					
	4.77	3.89	-0.15*	-1.03		-0.94	-0.21*					
100	4.09	2.78	-0.12*	-1.43	-0.64*		-C-16*					
32	3.30	2.45	-0.05*	-0.94	-0.03*	-0.88	-0.13*	-0.98				
8	3.30	2072	000									
		٧	COMPUN	ENT (M/	SECI							
					CDAC	DIFF	(-DA(	DIFF				
LEVEL(M)	GPAL	DIFF	GPAC	DIFF			-0.51*	-4.09				
GEO	3.59	0.01	-C.50*	-4.08		-4.09		-4.78				
1000	7.16	3.06	-1.25*	-4.76		-5.00		-4.75				
900	7.35	3.72	-1.10*	-4.74		-4.82		-5.28				
800	7.42	3.15	-1.01*	-5.28		-5.31		-5,49				
700	7.45	2.87	-0.914	-5.49		× -5.51		-5.54				
600	7.42	2.72	-0.84	-5.54		* -5.56						
500	7.38	2.72		* -5.42		× -5.44		-5.42				
400	7.30	2.30		r -5,09		· -5.70		-5.69				
300	7.18	1.45		き 一台ょう		÷ −6 ≈ 3€		-5.35				
200	5.97	1.89		* ~5.63		t -5.54		* -5.63				
_	6.58	2.03	-C-45	<b>*</b> −5.00		* ~5.01		-5.00				
100 32	5.84	2.57		* -3.61		e -3061		-3.60				
32	5 + OZ	1.38		* -3.68	-0.25	<b>4</b> -3.68	-G.28	<b>* -3.68</b>				

TADE NO	7.	30 0	<del>-</del> . 4	20.0				
TAPE NO.		0.80		09.0		0.0		11.0
INTERVAL	14	2HR	i	2HR	12	2HR	1.3	2HR
		Λ.1	D TEMP	- SATHE E	(DEG C	<b>\</b>		
		~ ~ ~	IK 4 LMF1	-KAI UKL	TOLG C			
LEVEL(M)	GPAC	DIFF	GP A C	DIFF	GPAC	DIFF	GPAC	DIFF
1000	25.64	-1.36	25.66	-1.34	25.66	-1.34	25.87	-1.13
900	20.06	-1.94	26.08	-1.92	26.09	-1.91	26.29	-1.71
800	26-24	-2.76	26.28	-2.72	26.28	-2.72	26.49	-2.51
700	26.37	-3.63	26.41	-3.59	26-41	-3.59	26.62	-3.38
600	26.45	-4.55	26.49	-4.51	26.50	-4.50	26.71	-4.29
500	26.53	-5.57	26.57	-5.53	26.57	-5.53	26.77	-5.33
400	26.56	-6.44	26.61	-6.39	26.60	-6.40	26.81	-6.19
300	26.59	-7.51	26.63	-7.47	26.63	-7.47	26.83	-7.27
200	26.59	-8-21	26.64	-8.16	26.63	-8.17	26.82	-7.98
100	26.54	-8.76	26.58	-8.72	26.58	-8.72	26.76	-8.54
32	26.33	-11.57	26.36	-11.54	26.36	-11.54	26.51	-11.39
8	26.11	-11.19	26.14	-11.16	26.13	-11.17	26.26	-11-04
2	25.54	-10-86	25.49	-10.91	25.49	-10.91	25.56	-10.84
0	24.79	XXXX	24.83	XXXX	24.84	XXXX	24.86	XXXX
			VAPOR F	PRESSURE	E (MB)			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	15.81	0.37	15.83	0.39	15.82	0.38	15.54	0.10
900	16.67	0.34	16.71	0.38	16.71	0.38	16.46	0.13
800	17.21	0.22	17.27	0.28	17.27	0.28	17.05	0.06
700	17.71	-0.05	17.77	0.01	17.76	0.0	17.55	-0.21
600	18.11	-0.66	18.19	-0.58	18.19	-0.58	17.99	-0.78
500	18.55	-1.07	18-64	-0.98	18.64	-0.98	18.43	-1.19
400	18.95	7.37	19-04	7.46	19.04	7.46	18.85	7.27
300	19.39	7.33	19.49	7.43	19.49	7.43	19.29	7.23
200	19-83	3.95	1.9.94	4.06	19.93	4.05	19.74	3.86
100	20.41	8.28	20.51	8.38	20.51	8.38	20.32	8.19
32	21.00	13.63	21.11	13.74	21.12	13.75	20.93	13.56
8	21.56	14.63	21.67	14.74	21.66	14.73	21.48	14.55
2	22.41	22.41	22.66	22.66	22.65	22.65	22.50	22.50
O	23.54	XXXX	23.65	XXXX	23.64	XXXX	23.53	XXXX
						•		

TAPE NO. INTERVAL		6•0 HR		7.0 HR		8•0 HR		2.0 HR		
AIR TEMPERATURE (DEG C)										
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF		
1000	24.41	1.41	24.41	1.41	24.37	1.37	24.41	1.41		
900	24.99	0.99	24.99	0.99	24.92	0.92	24.53	0.53		
800	25.24	0.34	25.25	0.35	25.17	0.27	24.63	-0.27		
700	25.42	-0.38	25.43	-0.37	25.34	-0.46	24.74	-1.06		
600	25.57	-0.93	25.58	-0.92	25.48	-1.02	24.85	-1.65		
500	25.71	-1.59	25.72	-1.58	25.63	-1.67	24.97	-2.33		
400	25.83	-2.37	25.84	-2.36	25.75	-2.45	25.11	-3.09		
300	25.99	-3.01	26.00	-3.00	25-91	-3.09	25.27	-3.73		
200	26.16	-3:84	26.17	-3.83	26.08	-3.92	25.51	-4.49		
100	26.41	-5.29	26.42	-5.28	26.34	-5.36	25.90	-5.80		
32	26.76	-7.84	26.77	-7.83	26.69	-7.91	26.46	-8.14		
8	27.25	-6.75	27.26	-6.74	27.18	-6.82	27.25	-6.75		
2	28.28	-3.92	28.29	-3.91	28.22	-3.98	29.03	-3.17		
0	29.23	XXXX	29.24	XXXX	29.19	XXXX	30.68	XXXX		
			VAPOR P	RESSURI	E (MB)					
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF		
1000	12.74	0.40	12.77	0.43	12.98	0.64	13.47	1.13		
900	13.51	0.73	13.54	0.76	13.72	0.94	14.11	1.33		
800	14-02	0.56	14.04	0.58	14.21	0.75	14.55	1.09		
700	14.46	0.29	14.49	0.32	14.65	0.48	14.99	0.82		
600	14.86	-0.06	14.87	-0.05	15.03	0.11	15.39	0-47		
500	15.27	-0.25	15.28	-0.24	15.44	-0.08	15.82	0.30		
400	15.65	-0.50	15.65	-0.49	15.81	-0.34	16.24	0.09		
300	16.09	-0.80	16.11	-0.78	16.25	-0.64	16.74	-0.15		
200	16.54	-1.22	16.55	-1.21	16.69	-1.07	17.28	-0.48		
100	17.17	-1.71	17.19	-1.69	17.31	-1.57	18.07	-0.81		
32	17.51	9.16	17.93	9.18	18.04	9.29	19.13	10.38		
8	18.69	10.26	18.71	10.28	18.81	10.38	20.31	11.88		
2	20 - 21	20.21	20.22	20.22	20.28	20.28	22.87	22.87		
O	21.62	XXXX	21.62	XXXX	21.65	XXXX	25.24	XXXX		

KICH SC/	SECI 18	024	18	109	16	369	107	104
TAPE NO.	16	6.0	31	7.0	31	8 <b>.</b> 0	322	2.0
INTERV AL	6	hR	6	HR	6	HR	61	iR
		Ú	COMPON	ENT (M/	2FC)			
LEVEL (M)	GPAL	DIFF	GPAL	OIFF	LPAC	DIFF	GPAC	DIFF
GEO	1.67	1.67	1.67	1.07	1.67	1.07	0.0	0.0
1000	2.75	1.30	2.37	0.92	2.70	1.31	-5.98*	-7.44
900	2.91	1.46	2.79	1.34	2.92	1.46	-5.83*	-7.29
მიი	2.96	1.38	2.89	1.31	2.96	1.38	-5.76*	-7.34
700	2.96	0.59	2.92	0.55	2.90	0.59	-5.70*	-8.07
600	2.94	0.57	2.91	0.55	2.94	0.57	-5.63*	-8.00
500	2.90	-0.05	2.88	0.07	2.90	-0.05	-5.58*	-8.53
400	2.84	-0.11	2.82	-0.13	2.83	-0.12	-5.51*	-8.46
300	2.76	-0.80	2.75	-0.81	2.75	-0.81	-5.40*	-8.96
200	2.64	-0.01	2.63	-0.02	2.64	-0.01	-5.24*	-7.89
100	2.45	1.04	2.44	1.03	2.44	1.03	-4.95*	-6.30
32	2.12	86.0	2.11	0.38	2.11	0.38	-4.40*	.14
Ř	1.72	-0.36	1.72	-0.37	1.72	-0.37	-3.62*	· . •71
			COMBCN	. A.T. (A)	1564 )			
		٧	COMPON	ENI (M/	SEC !			
LEVEL(M)	GP AC	DIFF	GPAC	DIFF	GPAL	UIFF	GPAC	DIFF
υEO	-0.51*	10.57	-C.51*	-10.97	6 ° 51*	-10.97	10.46	0.0
1000	-3.47*	-4.93	-2.51*	-4.37	*YE, t-	-4.85	1.77	0.32
900	-3.14*	-4.60	-2.88*	-4.34	··3。67#	-4.53	2.02	0.57
80G	-2.92*	-4.24	-2.77*	-4.09	2 0 57#	-4.19	2.13	0.31
700	-2.75*	-4.73	-2.64*	-4.02	~2.70*	-4.08	2.19	15.0
600	2.6C*	-4.58	-2.52*	-4.50	-2.56*	-4.54	2.23	0,25
500	-2.46*	-4.53	-2=(0*	-4.47	2 . 42*	-4.49	2.24	0.18
40 C	-2.32*	-4.39	-2.28	-4.35	-2.29*	-4.36	2.24	3-17
30O	-2.19*	-4.25	-2,14*	-4.20	-2.10*	-4022	2.21	0.15
∠00	-2.03*	-5.18	- 2.000	5.15	~2.Gi*	-5.16	2.16	6.99
100	-1.82*	-5:69	<b>-1.</b> 80*	-5.67	-1,80*	-5.67	2.03	-1.84
32	-1.55*	2.72	-1.54	-2.69	~ <u>)</u> ₀53*	-2.70	1.79	0.62
ಕ	-1.24	-1.06	-1.22	-1.04	-1.23	-1.05	1.46*	1.64

TAPE NÚ. INTERVAL	316.U 6HR		317.0 6HR		318.0 6HR		322.0 6HR	
		AI	R TEMPE	RATURE	(DEG C)			
LEVEL (M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	24.41	1.41	24.41	1.41	24.37	1.37	24-41	1.41
900	24.99	0.99	24.99	0.99	24.92	0.92	24.53	0.53
800	25.24	0.34	25.25	0.35	25.17	0.27	24.63	-0.27
700	25.42	-0.38	25.43	-0.37	25.34	-0.46	24.74	-1.06
600	25.57	-0.93	25.58	-0.92	25.48	-1.02	24.85	-1.65
500	25.71	-1.59	25.72	-1.58	25.63	-1.67	24.97	-2.33
400	25.83	-2.37	25.84	-2,36	25.75	-2.45	25.11	-3.09
300	25.99	-3.01	26.00	-3.00	25.51	-3.09	25.27	-3.73
200	26.16	-3.84	26.17	-3.83	26°C8	-3.92	25.51	-4.49
100	26.41	-5.29	26.42	-5.28	26.34	-5.36	25.90	-5.80
32	26.76	-7.84	26.77	-7.83	26.69	-7.91	26.46	-8-14
8	27.25	-6.75	27.26	-6.74	27.18	-6.82	27.25	-6.75
2	28.28	-3.92	26.25	-3.91	28.22	-3.98	29.03	-3.17
0	29.23	XXXX	29.24	XXXX	29.19	XXXX	30.68	XXXX
			VAPUR P	RESSUR	(MB)			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF
1000	12.74	0.40	i2.77	0-43	12.98	0.64	13-47	1.13
900	13.51	0.73	13.54	0.76	13.72	0.94	14.11	1.33
800	14.02	0.56	14.04	0.58	14,21	0.75	14.55	1.09
700	14.46	0.29	14.49	6.32	14000	6.48	14.99	0.82
600	14.85	-0.06	14.57	-0.05	15.63	U.11	15.39	0.47
500	15.27	-0.25	15.26	-0.24	25 4 414	- 0.508	15.32	0.30
<b>4</b> 9Ω	15-65	-0.50	15.tó	~£,49	15.81	0.34	16.24	0.09
300	16.09	-0.80	16.11	~0.78	16.25	-0.54	16.74	-0.15
200	16.54	-1.22	16.55	-1.21	16.69	-1.07	17.28	-0.48
100	17.17	-1.71	17.19	l. 69	17.31	-1.57	18.07	-0.81
32	17.51	9.16	17.93	9.18	18.04	9.29	19.13	10.38
B	18.69	10.26	16.71	10.28	18.81	10.38	20.31	11.88
€.	20.21	20.21	20.22	20.22	20.28	20.28	22.87	22,87
()	41.62	XXXX	21.02	XXXX	21.65	XXXX	25.24	XXXX

TAPE NO. INTERVAL				17.0 5HR	_		322.0 6HR			
		S01	L TEMPE	RATURE	(DEG C)					
LEVEL(M)	_		GPAC		GPAC	DIFF		DIFF		
-0.0	24.55	-28.05				-28.05	26.79	-25.81		
	23.96			3.17		3.17		4-41		
-0.250	25.28				25.28					
-0.500	24.08	4.36	24.08			4.36				
-1.000	20.81	4.25	20.81	4.25	20.81	4.25	20.85	4.29		
-2.000	20.62	4.18	20.62	4.18	20.62	4.18	25.88	9.44		
WIND SPEED (M/SEC)										
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF		
8		0.04								
2	1.03	-0.67	1.02	-0.68	1.02	-0.68	1.88	0.18		
	5	SURFACE	ENERGY	TERMS	(LY/SEC)	X1000				
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF		
S(D)	19.77	0.27	19.78	0.28	19.78	0.28	19.78	0.28		
R(N)	11.54	XXXX	11.54	XXXX	11.55	XXXX	11.36	XXXX		
Q(C,0)	2.56	XXXX	2.56	XXXX	2.63	XXXX	2.62	XXXX		
01E.01	7.64	XXXX	7.64	XXXX			7.62	XXXX		
	1.34	XXXX	1.34	XXXX	1.33	XXXX	1.12	XXXX		
	SUI	RFACE SH	EAR ST	RESS ID	YNES/CM	SQIXIO				
PARAMETE	R GPAC	DIFF	GPAC	.cF	GPAC	DIFF	GPAC	DIFF		
TAU	8.12	XXXX	8.10	XXXX	8.22	XXXX	8.86	XXXX		
	INTEGRATED EVAPOTRANSPIRATION (GM/CM SQ)X100									
PARAMETE	D CDAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF		
E	12.50	XXXX	12.60	XXXX	= :	XXXX	16.10	XXXX		

KICH SU/	SEC 1 1070	4 1	0694	10	694		
TAPE NO.	323.	_	24.0				704
INTERVAL	6HR		6HR		5.0		26.0
	<b>3</b> (	•	אחנג	6	HR	6	HR
		U COMPON	NENT (M/	SECI			
LEVEL(M)	GPAC I	DIFF GPAC	DIFF	GPAC	DIFF	CDAC	0.00
GEO	-0.00 -0	0.00 -0.00	-0.00	0.0	0.0	GPAC	DIFF
1000	-5-07* -6		-7.36	-5.90*		-0.00	
900	-5.62* -1		-7.23	-5.77*			-6.60
800	-5.65* -7		-7.29	-5.71*			-7.14
700	-5.63* -8		-8.03	-5.66*			-7.29
600	-5.59* -7		-7.98	-5.61*			-8.05
500	-5.54* -8		-8.50	-5.55*		-5.64*	
400	-5.47* -8		-8.43	-5.48*		-5.58*	
300	-5.37# -8		-8.94	-5.38*		-5.51*	
200	-5.22* -7		-7.87	-5.22*		-5.40* -5.25*	
100	-4.93* -6		-6.35	-4.93*			
32	-4.38* -6	• •	-6.12	-4-38*		-4 <b>.</b> 95*	
8	-3.60* -5		-5.69	-3.60*		-4.40*	
	_	5000	2407	- J - 60+	-2.09	-3.61*	-5-70
		V COMPON	ENT (M/	SEC)			
LEVEL(M)	GPAC D	IFF GPAC	DIFF	GPAC	חוכר	0016	
GED		0.0 10.46	0.00	10.46	DIFF	GPAC	DIFF
1000		1.79	0.33	1.79	0.0	10.46	0.00
900	_	-64 2.03	0.58	2.04	0.34	1.78	0.33
800	<del></del>	88 2.14	0.82	2.14	0.59	2.09	0.64
700	-	2.20	0.23	2.21	0.82	2.20	0.89
600		.31 2.24	0.27		0.23	2.26	0.28
500	_	·22 2·25	0.18	2.24	0.27	2.29	0.31
400		•21 2·25		2.25	0.18	2-29	0.22
300	·	• 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	0.18	2.25	0.18	2.28	0.22
200		•95 2.16	0.16	2.23	0.17	2.26	0.20
100		.80 2.05	-0.98		-0.98	2.20	-0.95
32	<del>-</del>	•65 1.80	-1.82		-1.82	2.08	-1.79
8		.66 1.46*	0.63	1.80	0.64	1.82	0.65
•	7440+ T	• • • • • • • • • • • • • • • • • • •	1.64	1.47*	1.65	1-49*	1.67

TAPE NO. INTERVAL	323.0 6HR		324.0 6HR		325 <b>.</b> 0 6НR		326.0 6HR	
		AI	R TEMPE	RATURE	(DEG C)			-
LEVEL(M)	GPAC	DIFF	<b>GP</b> AC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	24.35	1.35	24.35	1.35	24.22	1.22	24.28	1.28
900	24.48	0.48	24.48	0.48	24.29	0.29	24.36	0.36
800	24.59	-0.31	24.58	-0.32	24.38	-0.52	24.43	-0.47
700	24.71	-1.09	24.69	-1.11	24.46	-1.34	24.51	-1.29
600	24-81	-1.69	24.80	-1.70	24.56	-1.94	24.61	-1.89
500	24.94	-2.36	24.94	-2.36	24.68	-2.62	24.73	-2.57
400	25.07	-3.13	25.06	-3.14	24.81	-3.39	24.84	-3.36
300	25.24	-3.76	25.25	-3.75	24.97	-4.03	25.01	-3.99
200	25.48	-4.52	25.48	-4.52	25.19	-4.81	25.23,	-4.77
100	25.85	-5.85	25.86	-5.84	25.53	-6.17	25•57 <sup>°</sup>	-6.13
32	26.44	-8.16	26.43	-8.17	26.07	-8.53	26.13	-8.47
8	27.22	-6.78	27-22	-6.78	26.84	-7.16	26.88	-7.12
2	29.01	-3.19	29.01	-3.19	28.57	-3.63	28.62	-3.58
0	30.66	XXXX	30.66	XXXX	30.17	XXXX	30.21	XXXX
			VAPOR P	RESSURE	(MB)			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	13.43	1.09	13.43	1.09	13.35	1.01	13.40	1.06
900	14.04	1.26	14.05	1.27	13.93	1.15	13.99	1.21
800	14.49	1.03	14.50	1.04	14.36	0.90	14.44	0.98
700	14.92	0.75	14.92	0.75	14.79	0.62	14.86	0.69
600	15.31	0.39	15.32	0.40	15.16	0.24	15.24	0.32
500	15.75	0.23	15.75	0.23	15.57	0.05	15.66	0.14
400	16.16	0.01	16.16	0-01	15.98	-0.17	16.07	-0.08
300	16.66	-0.23	16-67	-0.22	16.46	-0.43	16.54	-0.35
200	17.21	-0.55	17.21	-0.55	16.98	-0.78	17.06	-0.70
100	18.02	-0.86	18.01	-0.87	17.75	-1.13	17.83	-1.05
32	19.00	10.31	19.07	10.32	18.77	10.02	18.85	10.10
8	20.26	11.83	20.25	11.82	19.91	11.48	19.99	11.56
2	22.82	22.82	22.81	22.81	22.37	22.37	22.45	22.45
O	25.18	XXXX	25.18	XXXX	24.64	XXXX	24.71	XXXX

TAPE NO. Interval		23.0 >HR		24.0 SHR	325•0 6HR		326.0 6HR	
		102	L TEMPE	RATURE	(DEG C)			
TEAET(W)	GPAC	DIFF			GPAC	DIFF	GPAC	DIFF
-0.0		-25.82		-25.82		-27.82	24.80	
	25.21	4.42	25.21	4.42	24.16	3.37	24.16	3.37
	25.54	4.71		4.72		4.50		4.51
	24.09		24.09			4.34		4.35
-1.000		4.29		4.29		4.25		4.23
-2.000	25.89	9.45	25.89	9.45	20.60	4.16	20.61	4.17
			WIND SE	PEED &M.	/SEC)			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
8	3.90	1.80	3.90	1.80	3.90	1.80	3.92	1.82
2	1.87	0.17	1.87	0.17	1.87	0.17	1.88	0.18
e de	:	SURFACE	ENERGY	TERMS	(LY/SEC	X1000		
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF.	GPAC	DIFF
S(D)	19.78	0.28	19.78	0.28	19.77	0.27	19.79	0.29
R(N)	11.36		11.36	XXXX	11.38		11.39	XXXX
016.01	2.63	XXXX	2.63	XXXX	2.54	XXXX	2.53	XXXX
0(E.O)	7.62	XXXX	7.62	XXXX	7.30	XXXX	7.31	XXXX
	1.11	XXXX	1.11	XXXX	1.54	XXXX	1.55	XXXX
	SU	RFACE SI	HEAR STE	RESS (D	YNES/CM	SQ1X10		
PARAMETE	R GPAC	DIFF	CPAC	DIFF	GPAC	DIFF	GPAC	DIFF
TAU	8.82	XXXX	8.82	XXXX	8.82	XXXX	8.86	XXXX
	INTEG	RATED EV	APOTRA	NSPIRAT	ION (GM	CM SQLX	100	
PARAMETE	R GPAC	ÖIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
E	16.00		16.00	XXXX		XXXX	14.70	XXXX

KICM SC/SEC) 10704 TAPE NO. 327.0 INTERVAL 6HR		10704	10704	10699	
		328.0	329•0	330.0	
		6HR	6HR	6HR	
	l	COMPONENT (M)	(SEC)		
LEVEL(M) GED 1000 900 800 700 600 500	GPAC DIFF	GPAC DIFF	GPAC DIFF	GPAC DIFF	
	0.0 0.0	1.67 1.67	1.67 1.67	1.67 1.67	
	-5.98* -7.44	2.83 1.37	2.40 0.94	2.82 1.37	
	-5.84* -7.30	2.89 1.44	2.76 1.31	2.88 1.43	
	-5.77* -7.35	2.88 1.30	2.82 1.24	2.87 1.30	
	-5.72* -8.09	2.84 0.47	2.81 0.44	2.84 0.47	
	-5.66* -8.03	2.80 0.43	2.78 0.41	2.80 0.43	
	-5.60* -8.55	2.75 -0.20	2.73 -0.22	2.74 -0.21	
	-5.52* -8.47	2.67 -0.28	2.67 -0.28	2.67 -0.28	
300	-5.41* -8.97	2.59 -0.97	2.59 -0.97	2.59 -0.97	
200	-5.25* -7.90	2.47 -0.18	2.47 -0.18	2.47 -0.18	
100	-4.96* -6.37	2.29 0.88	2.28 0.88	2.28 0.88	
32	-4.40* -6.14	1.98 0.24	1.98 0.24	1.98 0.24	
8	-3.62* -5.71	1.61 -0.48	1.60 -0.48	1.61 -0.48	
LEVEL(M)	GPAC DIFF	GPAC DIFF	GPAC DIFF	GPAC DIFF	
GEO	10.46 0.00	-0.51*-10.97	-0.51*-10.97	-0.51*-10.97	
1000	1.78 0.33	-3.11* -4.57	-2.59* -4.05	-3.18* -4.64	
900	2.03 0.58	-2.74* -4.20	-2.50* -3.96	-2.79* -4.25	
800	2.14 0.82	-2.53* -3.85	-2.38* -3.70	-2.57* -3.89	
700	2.21 0.23	-2.36* -4.34	-2.25* -4.23	-2.40* -4.38	
600 500 400 300 200 100 32	2.25 0.27 2.25 0.18 2.25 0.18 2.23 0.17 2.17 -0.98 2.05 -1.82 1.80 0.64 1.47* 1.65		-1.47* -5.34	-2.26* -4.24 -2.13* -4.20 -1.99* -4.06 -1.86* -3.92 -1.71* -4.86 -1.52* -5.39 -1.28* -2.45 -1.02 -0.84	

CASE OPE 4 GPAC BUTPUT DATA

TAPE NÚ. INTERVAL	327.U OHR		328.0 6HR			9.0 HR		0.0 HK
		Al	K TEMPE	RATURE	(DEG C)			
LEVEL(M)	GPAL	ULFF	GPAL	DIFF	GP AC	DIFF	GPAL	UIFF
1000	24.30	1.30	24.23	1.23	24.23	1.23	24.29	1.29
900	24.36	عذ.ن	24.31	0-31	24.31	0.31	24.37	0.37
800	24.45	-0.47	24.38	-0.52	24.38	-0.52	24.46	-0.44
700	24.52	-1.28	24.47	-1.33	24.47	-1.33	24.56	-1.24
600	24-61	-1.39	24.56	-1.94	24.57	-1.93	24.65	-1.85
500	24.73	-2.57	24.69	-2.61	24.68	-2.62	24.77	-2.53
400	24.04	-3.36	24.01	-3.39	24.81	-3.39	24.90	-3.30
300	25.02	-3.58	24.97	-4.03	24.97	-4.03	25.05	-3.95
200	25.22	-4.78	25.18	-4.82	25.21	-4.79	25.28	-4.72
100	25.58	-6.12	25.55	-0.15	25.54	-6.16	25.63	-6.07
32	26.13	-8.47	26.09	-8.51	26.11	-8.49	26.17	-8.43
8	26.90	-7.10	26.86	-7.14	26.86	-7.14	26.92	-7.08
2	28.62	-3.58	28.54	-3.00	20.54	-3.66	28.57	-3.63
0	30.21	XXXX	30.17	XXXX	30.18	XXXX	30.18	XXXX
			VAPUR P	RESSURE	(Mb)			
LEVEL(M)	GPAL	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF
1000	13.37	1.05	13.36	1.02	13.36	1.02	13.15	0.81
900	13.99	1.21	13.94	1.10	13.93	1.15	13.76	0.98
800	14.43	0.57	14.37	0.91	14.37	0.91	14.20	0.74
700	14.65	0.68	14.77	0.60	14.75	0.62	14.63	0.46
600	15.23	0.31	15.16	0-24	15.16	0.24	15.02	0.10
500	15.65	0.13	15.56	0.06	15.50	0.06	15.44	-0.08
400	16.06	-0.09	15.98	-0.17	15.98	-0.17	15.86	-0.29
00د	16.54	-0.35	16.46	-0.43	16.47	-0.42	16.34	-0.55
200	17.07	-0.65	17-00	-0.16	16.90	-0.78	16.86	-0.90
100	17.83	-1.05	17.76	-1.12	17.70	-1.12	17.65	-1.23
32	16.84	10.09	16.76	10.03	18.70	10.03	18.56	9.91
ម	19.99	11.56	19.92	11.45	19.52	11.49	19.81	11.38
2	22.45	22.45	22.32	22.32	22.52	24.34	22.22	22.22
O	24.72	$\mathbf{X} \mathbf{X} \mathbf{X} \mathbf{X}$	24.65	XXXX	24.66	XXXX	24.57	XXXX

TAPE NU. INTERVAL	327.0 6HR		328.0 6HR		329.0 6HR			50.0 HR			
		Şu 1	L TEMP	RATUKE	(DEG C)						
TEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF			
-0.0	24.80	-27.80	24.79	-27.81	24.79	-27.81	24.79	-27.81			
-0.125	24.17	3.38	24.17	3.38	24.17	3.38	24.17	3.38			
-0.250	25.33	4.50	25.33	4.50	25.33	4.50	25.33	4.5C			
-0.500	24.07	4.35	24.07	4.35	24.08	4.36	24.08	4.36			
-1.000	20.81	4.25	20.81	4.25	20.81	4.25	2C.81	4.25			
-2.000	20.61	4.17	20.60	4.16	20.60	4-16	20.61	4.17			
WIND SPEED (M/SEC)											
LEVEL(M)	GPAC	DIFF	CP AC	DIFF	GP AL	DIFF	GPAC	DIFF			
ರ	3.91	1.31	1.90	-0.20	1.85	-0.21	1.91	-0.19			
2	1.87	0.17	C.94	-0.76	0.93	-0.77	0.94	-0.76			
	S	URFALE	ENERGY	TERMS (	LY/SEC)	x1000					
PARAMETE	R GPAL	CLEF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
SIDI	19.80	0.30	19.79	0.29	19.79	0.29	19.79	0.29			
	11.40	XXXX	11.39	XXXX		XXXX	11.40	XXXX			
€(C,O)	2.54	XXXX	2.54	XXXX		XXXX	2.50	XXXX			
U(E,U)	7.32	XXXX	7.32	XXXX		XXXX	7.36	XXXX			
015.01	1.55	XXXX	1.54	XXXX	1.54	XXXX	1.55	XXXX			
	SUR	FALE SH	EAR STE	RESS (D)	(NES/CM	SHIXIO					
PARAMÉTE.	R GPAC	CIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
TAU	<b>გ</b> - გი	XXXX	4.30	XXXX	4.26	XXXX	4.30	XXXX			
	INTEGR	ATED EV	APOT RAI	NSPIRATI	ION (GM/	CM SQLX	100				
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
E	14-70	XXXX	14.70	XXXX	14.70	XXXX	14.70	XXXX			

KICM SC/ TAPE NO. INTERVAL			33.	1404 333.0 2HR		379 4.0 HR	1909 335.0 2HR	
		U	CUMPONI	ENT (M/	SECI			
TEAST (W)	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF	GPAC	OIFF
GEO	-8.39	0.02	-8.39	0.02	-8.39	0.02	1.66*	
1000	0.01	-4.61	-1.61*	-6.24	0.02	-4.60	4-24	-0.39
900	0.04	-3.54	C. 01	-3.58	0.04	-3.54	4-24	0.66
800	0.07	-2.97	0.07	-2.97	0.07	-2.97	4.26	1.22
700	0.05	-3.32	0.04	-3.33	0.06	-3.32	4.25	0.88
600	0.07	-3.30	G. G7	-3.30	0.06	-3.30	4.26	0.89
50C	0.05	-3.58	0.05	-3.58	0.05	-3.58	4.23	0.60
400	-0.02*	-3.27	-0.02*	-3.27	-0.01*	-3.26	4.14	0.89
300	-0.26*	-1.46	-0.26*	-1.46	-0.26*		3.90	2.70
200	-0.69	-0.38	-0.70	-0.39	-0.69	-0.38	3.50*	3.81
100	-1.04	-0 - 17	-1.04	-0.17	-1.05	-0.18	3.02*	3.89
32	-2.73	-1.86	-2.74	-1.87	-2.73	-1.86	1.53*	2.40
8	-3.02	-2.32	-3.02	-2.32	-3.02	-2.32	<b>0.88</b>	1.57
		٧	COMPON	ENT (M/	SECI			
TEAET(W)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
6E0	10.01	-0.01	10.01	-0.01	10.01	-0.C1	-0.50*	-10.52
1000	-2.26	-2.26	-1.80	-1.80	-2.24	-2.24	0.23	0.23
900	-2.22*		-2.21*	-2.52	-2.21*	-2.52	0.27	-0.04
800	-2.23*		-2.22*		-2.21*	-2.75	0.27	-0.27
700	-2.18*	-3.41	-2.18*		-2.17*	-3.40	0.30	-0.92
600	-2.16*	-4.52	-2.16*		-2.15*	-4.51	0.33	-2.02
500	-2.13*		-2.13*		-2.10*	-5.74	0.37	-3.27
400	-2.01*		-2.01*	-6.65	-2.01*	-6.65	0.50	-4.13
300	-1.74*		-1.74*	-	-1.74*		0.80	-3.66
200	-1.06*		-1.07*	-4.66	-1.06*	-4.65	1.47	-2.11
100	0.30		0-29	-1.57	0.29	-1.57	2.74	0.87
32	1.81	-0.85	1.81	-0.85	1.81	-0.85	3.96	1.30
8	1.86	0.20	1.85	0.19	1.85	0.19	3.72	2.06

#### CASE UPG 4 GPAC GUIPUT DATA

TAPE NO.	33	2.0	33	3.0	33	4.0	33	5.0
INTERVAL	2	HR	2	HR	2	HR	2	HR
	_							
		ΑI	R TEMPE	RATURE	(DEG L)			
LEVEL(M)	GPAC	DIFF	CPAC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	22.65	1.05	22.65	1.05	22.64	1.04	22.65	1.05
900	23.29	0.89	23.29	0.89	23.28	0.88	23.31	0.91
800	24.01	0.71	24.C2	0.72	23.99	0.69	24.03	0.73
700	24.62	0.12	24.62	0.12	24.59	0.09	24.64	0.14
600	25.21	-0.49	25.21	-0.49	25.18	-0.52	25.22	-0.48
500	25.79	-0.31	25.79	-0.31	25.76	-0.34	25.78	-0.32
400	26.25	0.05	26.25	-0.05	26.22	-0.08	26.19	-0.11
300	26.51	-0.39	26.51	-0.39	26.48	-0-42	26.42	-0.48
200	26.35	0.95	26.35	0.95	26.32	0.92	26.25	0.85
100	25.65	2.05	25.64	2 - 04	25.62	2.02	25.61	2.01
32	24.47	-0.23	24.47	-0.23	24.46	-0.24	24-47	-0-23
8	23.27	-1.23	23.27	-1.23	23.27	-1.23	23.36	-1.14
2	21.69	-2.21	21.70	-2-20	21.69	-2.21	21.72	-2.18
0	20.07	XXXX	20.08	XXXX	20.06	XXXX	20.02	XXXX
			VAPOR P	DECCIO	E (MA)			
			TATON T	KESSOKI				
LEVEL(M)	GPAL	DIFF	GP AC	DIFF	GFAC	DIFF	GPAC	DIFF
1000	11.72	0.87	11.74	0.89	11.76	0.91	11.73	0.88
900	12.19	0.95	12.20	0.96	12.22	0.98	12.21	0.97
800	12.78	1.27	12.79	1.28	12.81	1.30	12.81	1.30
700	13.45	1.18	13.46	1.19	13.47	1.20	13.41	1.14
600	13.72	0.64	13.72	0.64	13.73	0.65	13.73	0.65
500	14.12	0.74	14-12	0.74	14.13	0.75	14.12	0.74
400	14.53	0.83	14.54	0.84	14.54	0.84	14.51	0.81
360	14.99	0.98	14.37	0.96	14.99	0.98	14.92	0.91
200	15.29	3.02	15.30	3.03	15.29	3.02	15.22	2.95
100	15.42	5.79	15.42	5.79	15.43	5.80	15.39	5.76
32	15.27	8.30	15.27	0 د 8	15.28	8.31	15.43	8.46
8	15.92	8.82	15.91	8.81	15.91	8.81	16.10	9.00
2	18.41	18.41	18.40	18.40	18.41	18-41	18.23	18.23
Ō	20.96	XXXX	20.96	XXXX	20.98	XXXX	20.42	XXXX

TAPE NO. INTERVAL	332.0 2HR		333.0 2HR			<b>4.</b> 0 ∺R	335.0 2HR				
		SO1	L TEMP	ERATURE	(DEG C)						
LEVEL(M)	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF	GPAC	DIFF			
-0.0	16.93	-0.57	16.92	-0.58	16.93	-0.57	16.93	-0.57			
-0.125	24.38	1.88	24.38	1.88	24.38	1.88	24.38	1.88			
-0-250	25.82	2.88	25.81	2.87	25.81	2.87	25.82	2.88			
-0.500	24.14	2.75	24.13	2.74	24.13	2.74		-			
-1.000	20.76	2.59	20.75	2.58	20.76	2.59	20.75	2.58			
-2.000	20.61	2.61	20.61	2-61	20-61	2.61	20.61	2.61			
	WIND SPEED (M/SEC)										
LEVEL(M)	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF	GPAC	DIFF			
8	3.56	1.76	3.	1.76	3.55	1.75	3.84	2.04			
2	1.80	0.60	1.6	<b>U-6</b> 0	1.80	0.60	1.95	0.75			
	S	URFACE	ENERGY	TERMS	(LY/SEC)	X1000					
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
SIDA	5.20	0.20	5.20	0.20	5.22	0.22	5.20	0.20			
R(N)	1.59	XXXX	1.58	XXXX	1.59	XXXX	1.60	XXXX			
016.01	-0.31	XXXX	-0.30	XXXX	-0.30	XXXX	-0-44	XXXX			
0(E,0)	1.01	XXXX	1.01	XXXX	1.01	XXXX	1.17	XXXX			
015.01	0.90	XXXX	C-91	XXXX	0.90	XXXX	0.89	XXXX			
	SUR	FACE SH	EAR ST	RESS (D)	YNES/CM	SQ1X10					
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
IAU	1.02	XXXX	1.04	XXXX	1.02	XXXX	1.52	XXXX			
	INTEGRATED EVAPOTRANSPIRATION (GM/CH SQ)X100										
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF			
E	0.40	XXXX	0-40	XXXX	0.30	XXXX	0.40	XXXX			

KLEM SE/	SEC) 191	14	1	914	2:	314	2319	
TAPE NO.	336.	.0	33	7.0	33	8.0	339	9.0
INTERVAL	2HR	ì	2HR		2HR		2HR	
		U	COMPONE	ENT (M/	SEC)			
LEVELIMI		DIFF		DIFF		DIFF		DIFF
GEO	1.67* 1		1.67*		1.66*			10.08
1000		0.96	4.22		4.23	-0.40	3.67	-0.96
900	4.22	0.64		0.65	4.24	0.65	4.22	0.64
800		1.22		1.22	4.26	1.22		1.22
700		0.88	4.25	0.87	4.24	0.87	4.25	0.88
600	4.26	0.89		0.88	4.25	0.88	4.25	0.88
500		0.60		0.59	4-20	0.57	<b>*-21</b>	0.57
400	4.14	0.89	4.13	0.88	4.09		4.09	0.84
300	3.90	2.70	3.90		3.85	2.65	3.86	2.66
200	3.50*	3.81	3.50*		3.49#		3.49*	3.80
100	3.02*	3.89	3.02*	3.89	2.91*	3. 13	2.91*	3.78
32	1.54*	2-41	1-54+	2.41	1.81*	2.08	1.81*	
8	0.87*	1.57	0.87*	1-57	1.24*	1.94	1.24*	1.94
		v	COMPONE	ENT (M/	SECI			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
GEO	-0.50*-1		-0.51*-		-0.51*-	-10.53	-0.50*-	-10.52
1000	0.41	0.41	0.24	0.24	0.24	0.24		0.41
210	0.27 -	0.03	0-27		0.27		0.27	
500	0.27 -		0.27		0.27	-0.26	0.27	-0.27
700		0.92	0.31		0.31	-0.92	0.30	-0.92
600		2.03	0.34	-2.02	C-35	-2.01	0.34	-2.01
500		3.26	0.38	-3.26	0.40	-3.23	0.40	-3.23
400		4.13	0.51	-4.13	0.57	-4.07	0.56	-4.07
300		3.66	0.81	-3.66	0.91	-3.56	0.91	-3.56
200		2.11	1.48	-2-11	1.56	-2.03		-2.03
100		0.88		0.87	2.63	0.76	2.63	0.76
32		1.30		1.30	3.52	0.86	3.52	0.86
8	3.73	2.07	3.72	2.06	3.24	1.59		1.59

TAPE NO. Interval			-	7.0 HR	338.0 2HR		339.0 2HR	
•		AI	K TEMPE	RATURE	(DEG C)			
LEVELINI	GPAC	DIFF	GPAL	DIFF	GPAL	DIFF	GPAL	DIFF
1000	22.65	1.05	22.65	1.05	22.66	1.06	22-67	1.07
900	23.31	0.91	23.31	0.91	23.36	0.96	23.36	0.96
800	24.03	0.73	24.01	0.71	24.00	0.76	24.08	0.78
700	24.64	0.14	24.63	0.13		0.18	24.69	0.19
600	25.22	-0.48	25-21	-0.49	25.23	-0.47	25.25	-0.45
500	25.78	-0.32	25.76	-0.34	25.74	-0.36	25.75	-0.35
400	26.19	-0.11	26.17	-0.13	26.C8	-0.22	26.1C	-0.20
300	26.41	-0.49	26.38	-0.52	26.23	-0.67	26.26	-0.64
200	26-26	0.86	26.23	0.83	26.09	0.69	26.11	0.71
100	25.61	2.01	25.58	1.98	25.54	1.94	25.55	1.95
32	24.40	-0.30	24-47	-0.23	24.60	-0.10	24.60	-0.10
8	23.37	-1.13	23.36	-1.14	23.81	-0.69	23.81	-0.69
2	21.72	-2.18	21.70	-2.20	22.66	-1.24	22.65	-1.25
0	20.01	XXXX	19.99	XXXX	21.46	XXXX	21.45	XXXX
			VAPJR P	RESSUR	E (MB)			
LEVEL(N)	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF
1000	11.74	0.89	11.77	0.92	11.78	0.93	11.74	0.89
900	12.21	0.97	12.24	1.00	12.28	1.04	12-25	1.01
800	12.80	1.29	12.83	1.32	12.87	1.36	12.84	1-33
700	13.42	1.15	13.44	1.17	13.41	1.14	13.39	1.12
600	13.72	0.64	13.75	0.67	13.78	0.76	13.75	0.67
500	14-12	0.74	14.15	0.77	14.18	0.80	14-15	0.77
400	14.51	0.81	14.54	0.84	14.53	0.83	14.51	G.81
300	14.91	0.90	14-94	0.93	14.91	0.90	14.90	0.89
200	15.22	2.95	15.24	2.97	15-19	2.92	15.16	2.89
100	15.39	5.76	15.41	5 78		5.81	15.43	5.80
32	15.43	8.46	15.44	8.47		8.85	15.82	8.85
8	16.09	8.99		9.00	16.74	9.64	16.74	9.64
2	18-23	18.23	18.23	18,23	19.13	19.13	19.12	19.12
0	20.43	XXXX	20.42	> (××	21.62	XXXX	21.61	XXXX

TAPE NO. INTERVAL		336.0 2HR		37.0 2HR				39.0 2HR	
		\$01	L TEMP	ERATURE	(DEG C)				
LEVELIMI	GPAC	UIFF	GPAC	UIFF	GPAC	DIFF	GPAC	DIFF	
-0.0	16.93	-0.57	16.93	-0.57	20.66	3.16	20.67	3.17	
-0.125	24.37	1.87	24.37	1.87	25.01	2.51	25.01	2.51	
-0.250	25.81	2.87	25.81	2.87	25.85	2.91	25.85	2-91	
-0.500	24.13	2.74	24.13	2.74	24.13	2.74	24.13	2.74	
-1.000	20.75	2.58			20.77	2.60	20.77	2.60	
	20.51	2.61	26-61	2.61	25.89	7.89	25.88	7.88	
			WIND SE	PEED (M	/SEC)				
TEAET(W)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	
<u>ප</u>	3.84	2.04	3.83	2.03	3.47	1.67	3.47	1.67	
2	1.95	0.75			1.77				
	Ş	URFACE	ENERGY	TERMS	(LY/SEL)	(1000			
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF	
2(0)	5.20	0.20	5.19	0.19	5.20	0.20	5.00	0.00	
R(N)	1.60	XXXX	1.60	XXXX	1.45	XXXX	1.45	XXXX	
0(0,0)	-0 . 44	XXXX	-0.44	XXXX	-0.38	XXXX	-0.38	XXXX	
U(E,O)	1.17	XXXX	1.17	XXXX		XXXX	1.61	XXXX	
0(5,0)	0.89	XXXX	0.89	XXXX	0.23	XXXX	0.23	XXXX	
	ŞUR	REACE SE	EAR ST	RESS (D	YNES/CM S	501X10			
PARAMETE	R GPAC	DIFF	GPAC	OIFF	GPAC	DIFF	GPAC	DIFF	
TAU	1.54	XXXX	1.52	XXXX	1.70	XXXX	1.68	XXXX	
	INTEG	RATED EV	APOTRAI	NSPIRAT	10N (GM/	M SOLX	100		
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF	
E	0.40	XXXX	0.40	XXXX	0.70	XXXX	0.70	XXXX	

		10404	13694	10694									
KICH SU/SI	EC1 2304	10694	342.0	343.0									
TAPE NO.	340.0	341.0		2HR									
INTERVAL	2HR	2HR	2HR	2									
THI CALANT													
	U COMPONENT (M/SEC)												
	J												
	GPAC DIFF	CPAC DIFF	GPAC DIFF	GPAC DIFF									
TEAET(W)	<b>41.1.4</b>	-8.39 0.02	-8.39 0.02	-8.39 0.02									
GEO	1.67* 10.08		-1.29* -5.92	0.0 -4.63									
1000	4.23 -0.39		-0.31* -3.90	-0.07* -3.66									
900	4.24 0.65	-C.08# -3.67	-0.26* -3.30	-0.19* -3.23									
800	4.27 1.23	-0.194 - 3.23	-0.32* -3.70	-0.28# -3.66									
790	4.25 0.88	-0.29* -3.67	,,,,,,	-0.39* -3.76									
600	4.25 0.88	-0.39* -3.76	-0.40* -3.77	-0.46* -4.12									
	4.21 0.57	-0.48 = -4.12	-0.48* -4.12	~U.407 - 7012									
500	4.09 0.84	-0.57# -3.82	-0.57* -3.82	-0.57* -3.82									
400	,	-0.65* -1.85	-0.65 * -1.85	-0.65* -1.85									
300		-0.74 -0.43	-0.74 -0.43	-0.74 -0.43									
200		-0.80 0.07	-0.80 0.07	-0.80 0.07									
100	2.92# 3.79		-0.81 9.06	-0.81 0.06									
32	1.81* 2.68		-0.70 -0.00	-0.70 -0.00									
8	1.24* 1.94	-0.70 -0.00	-0.10										
		AND DAIGHT IM	/CEC )										
	,	V COMPONENT (M.	3201										
		2.10	GPAL DIFF	GPAC DIFF									
LEVEL(M)	GPAC DIFF	GPAC DIFF	0110	10.01 -0.01									
GEO	-0.51*-10.53	10.01 -0.01		-2.20 -2.20									
1000	0.23 0.23	-2.21 - 2.21		-2.04* -2.35									
900	0.27 -0.03	-2.06* -2.37	-1.96* -2.27	-1.91* -2.45									
	0.27 -0.27		-1.88* -2.42	-1.79* -3.02									
800	0.30 -0.92		-1.77* -3.00										
700		/ ^/	-1.68* -4.04	-1.69* -4.05									
600				-1.60+ -3.44									
500	0.40 -3.23			-1.52 * -6.10									
400	0.57 -4.07	-1.74 -5.00		-1.44* -5.91									
300	0.91 -3.56	_											
200	1.55 -2.03												
100	2.63 0.76		- 01										
32	3.52 0.86	-1.14* -3.80	-1.15* -3.81										
8	3.24 1.5	-C.96* -2.62	-0.95* -2.61	- 00,77. 2002									

CASE DPG 4 GPAC DUTPUT DATA

TAPE NO. INTERVAL				1.0 HR		2+0 HR	343.0 2HR	
		All						
TEAFT(W)	GPAC	OIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF
1000	22.67	1.07	23.61	2.01	23.59	1.99	23.01	2.01
900	23 - 36	0-96	24.31	1.31	24.31	1.91	24.29	1.89
800	24-07	0.77	24.53	1.23	24.52	1.22	24.51	1.21
700	24.69	0.19	24.62	0.12	24.59	0.09	24.59	0.09
600	25.25	-0.45	24.61	-1.09	24.59	-1.11	24.59	-1.11
500	25.75	-0.35	24.59	-1.51	24.56	-1.54	24.56	-1.54
400	26.09	-0.21	24.51	-1.79	24.48	-1.82	24.48	-1.82
300	26.26	-0.64	24.39	-2.51	24.36	-2.54	24.37	-2.53
200	26.11	0.71	24.22	-1-18	24.19	-1.21	24.19	-1.21
100	25.55	1.95	23.96	0.36	23.94	0.34	23.94	0.34
32	24.60	-0.10	23.51	-1.19	23.48	-1.22	23.48	-1.22
8	23-82	-0.68	23.14	-1-36	23.12	-1.38	23.13	-1.37
2	22.65	-1.25	22.29	-1.61	22.28	-1.62	22.28	-1.62
0	21.44	XXXX	21.42	XXXX	21.41	XXXX	21.41	XXXX
			VAPOR P	KESSURE	(MB)			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF
1000	11.74	0.89	12-35	1.50	12.38	1.53	12-38	1.53
900	12.24	1.00	12.99	1.75	12.99	1.75	13.00	1.76
800	12.84	1.33	13.36	1.85	13.38	1.87	13.38	1.87
700	13.39	1.12	13.71	1.44	13.71	1.44	13.72	1.45
600	13.75	0.67	13.98	0.90	13.99	0.91	13.98	0.90
500	14-14	0.76	14.29	0.91	14.30	0.92	14.29	0.91
400	14.50	0.80	14.56	0.86	14.55	0.85	14.55	0.85
300	14.87	0.86	14.86	0.85	14.87	0.86	14.86	0.85
200	15.16	2.89	15.16	2.89	15.16	2.89	15.17	2-90
100	15.43	5.80	15.57	5.94	15.57	5.94	15.57	5.94
32	15.82	8 • 85	16.03	9.06	16.03	9.06	16.03	9.06
8	16.74	9.64	16.51	9.41	16.50	9.40	16.51	9.41
2	19.13	19.13	17.42	17-42	17.42	17.42	17.42	17.42
0	21.62	XXXX	18.36	XXXX	18.36	XXXX	18.36	XXXX

TAPE NO. INTERVAL		40 •0 2 HR	341.0 2HR			342•0 2HR		343.0 2HR	
		SOI	L TEMP	ERATURE	(DEG C)				
LEVEL(M)	GPAC	DIFF	GP AC	DIFF	GPAL	DIFF	GPAC	DIFF	
-0.0	20.66	3.16	22.08	4.58	22.07	4.57	22.07	4.57	
-0.125	25.01	2.51	25.27	2.77	25.26	2.76	25.26	2.76	
-0.250	25.85	2.,91	25.86	2.92		2.92	25.86	2.92	
-0.500	24.13	2.74	24.13	2.74	24.13	2.74	24.13	2.74	
-1.000	20.77	2.60	20.77	2.60	20.77	2.60			
-2.000	25.89		25.88	7.88		7.88		7.88	
			WIND SE	PEED (M.	SEC)				
TEVET(W)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	
8	_	1.67		_			1.21		
2	1.77				0.61				
		SURFACE	ENERGY	TERMS	LYV2EC1	X1000			
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	
SIDI	5.20	0-20	5-19	0-19	5.20	0.20	5.19	0.19	
R(N)	1.45	XXXX	1.39	XXXX	1.40	XXXX	1.40	XXXX	
Q(C.0)	-0.38	XXXX	-1.29	XXXX	-1.29	XXXX	-1.29	XXXX	
Q(E,0)	1.62	XXXX	2.89	XXXX	2.89	XXXX	2.86	XXXX	
015.01	0-23	XXXX	-0.18	XXXX	-0.18	XXXX	-0.18	XXXX	
	Su	RFACE SH	EAR STA	RESS (D)	YNES/CM	SUIXIO			
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GP AL	DIFF	GPAC	DIFF	
TAU	1.68	XXXX	2.68	XXXX	2.70	XXXX	2.68	XXXX	
	INTEG	RATED EV	APOTRAN	SPIRAT	ION (GM/	CM SQ)X	100		
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF	
E	0.70			XXXX	2.70		2.60	XXXX	

KICH SC/	SEC 1 10694	10694	10694	10704
TAPE NO.	344.0	345.0	340.0	347.0
INTERVAL	2hR	2HR	2HR	2HR
	· ·	J COMPONENT (M/	SEC)	
TEAET(W)	GPAC DIFF	WAC DIFF	GPAC DIFF	GPAC DIFF
GEO	-8.39 0.02	-8.39 0.02	-8.39 0.02	1.67* 10.08
1000	0.0 -4.63	-1.31* -5.94	0.0 -4.63	4.20 -0.42
900	-0.07# -3.66	-0.32 * -3.91	-0.08* -3.67	4.10 0.52
800	-0.19* -3.23	-0.28* -3.32	-0.19 * -3.23	3.99 0.95
700	-0.28* -3.66		-0.29 * -3.67	3.87 0.50
600	-0.39* -3.76		-0.39* -3.76	3.76 0.39
500	-0.47* -4.11	-0.49* -4.13	-0.48* -4.12	3.64 0.0
400	-0.57* -3.82	-0.58* -3.83	-0.57* -3.82	3.52 0.27
300	-0.65* -1.85	-(.65* -1.85	-0.65* -1.85	3.38 2.18
200	-0.74 -0.43	-0.74 -0.43	-0.74 - 0.43	3.19# 3.50
100	-0.81 0.06		-0.80 0.07	2.93* 3.80
32	-0.81 0.06	-0.81 0.06	-0.81 0.06	2.53* 3.40
8	-0.70 -0.0C	-0.70 -0.00	-0.70 -0.00	2.05* 2.75
		V COMPONENT (M)	/SEC1	
		Y COMPONENT (M)	3207	
LEVEL(M)	GPAC DIFF		GPAC DIFF	GPAC DIFF
GEO	10.01 -0.01		10.01 - 0.01	-0.51*-10.53
1000	-2.20 -2.20	-1.89 $-1.89$	-2.21 -2.21	0.28 0.28
900	-2.04* -2.35	-1.97* -2.28	-2.06 * -2.37	0.44 0.14
800	-1.91* -2.45		-1.52* -2.46	0.57 0.03
700	-1.79* -3.02		-1.E0* -3.03	0.69 -0.53
600	-1.69* -4.05	-1.69* -4.05	$-1.70 \pm -4.06$	0.79 - 1.57
500	-1-60* -5.24	-1.60* -5.24	-1.61* -5.25	0.86 - 2.77
400	-1.52* -6.16		-1.53 * -6.17	0.93 -3.71
300	-1.44* -5.91		-1.45* -5.92	0.99 -3.47
200	-1.37* -4.96		-1.38* -4.97	1.00 -2.59
100	-1.29* -3.16		-1.29 * -3.16	0.99 -0.88
32	-1.15* -3.81		-1.15* -3.81	0.90 -1.76
8	-0.95* -2.61		-0.95* -2.61	0.75 -0.91

TAPE NO. INTERVAL			345.0 2HK			6•0 HK	347.0 2HR	
		ΔΙ	IR TEMPERATURE		ADEL CA			•
		~-			1020 07		•	
LEVEL(M)	GPAL	DIFF	GP AC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	23.59	1.99	23.40	2.00	23.60	2.00	23.59	1.99
900	24.26	1.86	24.28	1.88	24.28	1.88	24.26	1.86
800	24.46	1-16	24-48	1.18	24.47	1.17	24.45	1.15
700	24-51	0.01	24.54	0.04	24.53	0.03	24.51	0.01
600	24.47	-1.23	24.50	-1.20	24.50	-1.20	24.48	-1.22
500	24.43	-1.67	24.45	-1.65	24.45	-1.65	24.43	-1.67
400	24.31	-1.99	24.32	-1.98	24.32	-1.98	24.31	-1.99
300	24.16	-2.74	24.19	-2.71	24.19	-2.71	24.16	-2.74
200	23.94	-1-46	23.97	-1.43	23.90	-1.44	23.94	-1.46
100	23.63	0.03	23-65	0.05	23.65	0.05	23.63	0.03
32	23.08	-1.62	23.10	-1.60	23.10	-1.60	23.08	-1.62
8	22.62	-1.88	22-63	-1.87	22.64	-1.86	22.61	-1.89
2	21.56	-2.34	21-57	-2.33	21.57	-2.33	21.57	-2.33
0	20.47	XXXX	20-49	XXXX	20.47	XXXX	20.47	XXXX
			VAPUR P	RESSURE	E (MB)			
LEVEL(M)	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF	GPAL	DIFF
1000	12.37	1.52	12.36	1.51	12.34	1.49	12.37	1.52
900	12.99	1.75	12.99	1.75	12.99	1.75	12.99	1.75
30 <b>0</b>	13.36	1.85	13.35	.64	13.33	1.82	13.35	1.84
700	13.69	1.42	13.67	40	13.66	1.39	13.68	1.41
600	13.94	0.86	13.93	0.85	13.93	0.85	13.94	0.86
500	14.24	0.86	14.24	0.86	14.23	0.85	14.24	C. 86
400	14-48	0.78	14-48	C.78	14.47	0.77	14.49	0.79
300	14.77	0.76	14.78	0.77	14.77	0.76	14.77	0.76
200	15.05	2.78	15.05	2.78	15.04	2.77	15.05	2.78
100	15.43	5.80	15.44	5.81	15.43	5.80	15.43	5.80
32	15.83	8.86	15.84	8.87	15.84	8.87	15.84	8.87
8	16.25	9.15	16.25	9.15	16.25	9.15	16.25	9.15
2	17.05	17.05	17.05	17.05	17.05	17.05	17.03	17.03
0	17.86	XXXX	17.86	XXXX	17.86	XXXX	17.85	XXXX

TAPE NO	_	14.0 !HR		5 • 0 HR	-	6•0 HR	347.0 2HR	
		SUL	L TEMPE	RATURE	IDEG CI			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF
-0.0	18.34	0.84	18.34	0.84	18.34	0.84	18-34	0.84
-0.125	24.55	2.05	24.55	2.05	24.55	2.95	24-55	2.05
	25.83	2.89	25.81	2.87	25.82	2.88	25.81	2.87
	24.13	2.74	24.13	2.74	24.13	2.74		2.75
	20.76	2.59	20.75	2.58	20.76	2.59	20.76	2.59
-2.000	20.61	2.61	20.61	2.61	20.61	2.61	20.61	2.61
			WIND SP	EED (M	/SEC)			
LEVEL(M)	GPAL	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
8	1.21	-0.59	1.21		1.21	-0.59	2.19	0.39
2	0.61	-0.59	C-61		0.61	-0.59	1.12	-0-08
	:	SURFACE	ENERGY	TERMS	(LY/SEC)	X1000		
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAL	DIFF		DIFF
S(D)	5.20	0.20	5.20	0.20	5.01	0.01	5.21	0.21
R(N)	1.47	XXXX	1.46	XXXX	1.47	XXXX	_	XXXX
610,01	-1.01	XXXX	-1.63	XXXX	-1.61	XXXX	-1.61	XXXX
C(E.O)	2.49		2.49	XXXX	2.49	XXXX	2.49	XXXX
0(5,0)	0.01	XXXX	0.62	XXXX	0.62	XXXX	0.62	XXXX
	SU	RFALE SI	EAR STR	RESS (D	Y NE S/CM	SQIX10		
PARAMETE	R GPAC	DIFF	GP AC	DIFF	GPAC	DIFF		DIFF
TAU	2-70		2.70	XXXX	2.70	XXXX	4.94	XXXX
	INTEG	RATED E	APOTRAN	ISP IRAT	ION (GM)	CM SQ1)	(100	
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
E	2.20		2.30	XXXX	2.20	XXXX	2.20	XXXX

KIEM SG/	SEC 1 106	94	100	699		644	664	
TAPE NO.	348	3.0	34	9.0	351.0		352.0	
INTERVAL	21	IR.	2HR		1HR		1HR	
		U	COMPON	ENT (M.	/SEC)			
LEVEL(M)	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF	GPAC	DIFF
GE Ø	1.67*	10.08	1.67*	10.08	-10.41	0.01	-10.41	0.01
1000	3.76	-0.87	4-21	-0.42	1.95	-1.64	0.79	-2.80
900	4.02	0.43	4.11	0.52	1.96	-2.02	1.95	-2.02
800	3.96	0.92	3.99	0.95	1.98	-1.89	1.97	-1.90
700	3.86	0.48	3.88	0.50	1.95	-1.30	1.95	-1.30
600	3.75	0.38	3.77	0.40	1.97	-0.56	1.97	-0.56
500		0.01	3.65	0.02	1.97*	3.03	1.96*	3.02
400	3.51	0.26	3.52	0.27	1.95	0.41	1.95	0.4i
300	3.37	2.18	3.38	2.18		0.73		0.72
200	3.19*	3.50	3.19*	3.50	0.67	-2.23	0.66	-2.23
	2.93*		2.94*				0.93	
	2.53*		2.53*			-2.75	-3.33	-2.75
8	2.05*		2.05*	2.75	-4.33*	-4.78	-4.33*	-4.78
		٧	COMPONI	ENT (M.	/SEL)			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
GEO	-0.51*-	-10.53	-0.51*-	-10.53	8.75	0.01	8.75	0.01
1000	0.41	0.41	0.28	0.28	-0.59	-0.59	-0.44	-0.44
900	0.47	0.17	0.43	0.13	-0.57*	-1.64	-0.57*	-1-64
800	0.59	0.05	C.56	0.02	-0.57*	-1.98	-0.57*	-1.98
700	0.69	-0.53	0.69	-0.53	-0.55*	-2.07	-0.55*	-2.07
600	0.79	-1.56	0.78	-1.57	-0.54*	-2.31	-0.54*	-2.31
500	0.86		0.86	-2.77	-0.54*	-3.44	-0.54*	-3.44
400	0.93	-3.71	0.93	-3.71	-0.49*		-0.49*	
300		-3.47	0.98	-3.49	- 0.47*	-3.37	-0.48*	-3.38
200	1.00	-2.59	1-00	-2.59				-1.27
100	1.00		1.00	-0.87	1.57*	2.63	1.57*	2.63
32	0.91	-1.75	0.91	-1.74	2.84		2.84	-1.32
	0.76	-0.90	0.75	-0.91	2.49		2.48	

TAPE NO. INTERVAL				9.0 HR		1-0 HR	352.0 1HR	
		AI	R TEMPE	RATURE	(DEG C)			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	23.59	1.99	23.59	1.99	22.58	-0.52	22.58	-0.52
900	24.27	1.87	24.27	1.87	23.15	-0.85	23.15	-0.85
800	24-45	1.15	24-47	1.17	23.90	-1.00	23.90	-1.00
700	24.51	0.01	24-52	0.02	24.43	-1.07	24.44	-1.06
600	24.48	-1.22	24.49	-1.21	25.07	-1.03	25.07	-1.03
500	24-42	-1.68	24.44	-1.66	25.73	-1.08	25.72	-1.08
400	24.29	-2.01	24.32	-1.98	26.26	-0.94	26.25	-0-95
300	24.16	-2.74	24-17	-2.73	26.83	-0.97	26.83	-0.97
200	23.94	-1.46	23.96	-1.44	26.59	-0.41	26.61	-0.39
100	23.63	0.03	23-64	0.04	25.59	0.69	2 <b>5.59</b>	0.69
32	23.08	-1.62	23.09	-1.61	24.73	1.13	24.72	1.12
8	22.62	-1.88	22-62	-1.88	22.21	0.21	22.21	0.21
2	21.57	-2.33	21-58	-2.32	18.07	-2.83	18.09	-2.81
0	20-47	XXXX	20.49	XXXX	13.88	XXXX	13.92	XXXX
			VAPOR F	SSURI	E (MB)			
LEVEL(M)	GPAC	DIFF	GP A C	DIFF	GP AC	DIFF	GPAC	DIFF
1000	12.38	1.53	12.35	1.50	11.72	-0.06	11.73	-0.05
900	12.99	1.75	12.97	1.73	12.15	0.02	12.16	0.03
800	13.35	1.84	13.33	1.82	12.64	0.01	12.63	0.0
700	13.69	1.42	13-65	1.38	13.75	0.67	13.74	0.66
600	13.95	0.87	13.93	0-85	13.55	0-17	13.55	0.17
500	14-24	0.86	14.22	0.84	14.02	0.25	14.03	0.26
400	14.49	0.79	14-46	0.76	14.61	0.52	14-61	0.52
300	14.77	0.76	14.75	0.74	15.02	0.52	15.02	0.52
200	15.05	2.78	15.04	2.77	15.54	2.46	15.55	2.47
100	15.43	5.80	15.42	5.79	15.78	5.80	15.79	5.81
32	15.84	8.87	15.82	8.85	14.63	7.92	14.63	7.92
8	16.25	9.15	16.24	9.14	13.72	7.05	13.72	7.05
2	17.03	17.03	17-02	17.02	14.58	14.58	14-6	14.60
0	17.85	XXXX	17.84	XXXX	15.45	XXXX	15.	XXXX

TAPE NO. INTERVAL	348.0 2HR		349-0 2HR			351.0 1HR		2.0 HR
		sol	L TEMP	ERATURE	(DEG C)			
TEAET(W)	GP AC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
-0.0	18.34	0.64		0.85	15.23	-3.77	15.23	-3.77
-0.125	24.55	2.05	24.55	2.05	25.02	1.41	25.03	1.42
-0.250	25.82	2.88	25.82	2.88	25.93	1.99	25.94	2.00
-0.500	24.14	2.75	24.12	2.73	24.14	1.92	24-14	1.92
-1-000	20.76	2.59	20.76	2.59	20.75	1.75	20.75	1.75
-2.000	20.61	2.61	20.61	200%	20-61	1.83	20.61	1.83
			WIND SE	PEED (	/SEC)			
TEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
8	2-19	0.39	2.19	0.39	5.00	2.10	5.00	2.10
2	1-12	-0.08	1.12		₹•52	0.82	2.52	0.82
		SURFACE	ENERGY	TERMS	(LY/SEC)	X1000		
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
SIDA	5.20	0.20	5.20	0.20	1.25	0.35	1.29	0.39
RINI	1-47	XXXX	1.48	XXXX	-0.60	XXXX	-0.59	XXXX
Q(C.O)	-1.61	XXXX	-1.62	XXXX	-0.37	XXXX	-0.37	XXXX
C(E.O)	2.49	XXXX	2.50	XXXX	0.16	XXXX	0.16	XXXX
0(5.0)	0.62	XXXX	0.62	XXXX	-0.38	XXXX	-0.37	XXXX
	SU	RFACE SI	HEAR STE	RESS (D	YNES/CM	\$01X10		
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
TAU	4.94	XXXX	4.94	XXXX	0.68	XXXX	0.68	XXXX
	INTEG	RATED E	APUTRA	NSP1RAT	ION (GM/	CH SOLX	100	
PARAMETE	R GPAC	DIFF	GP AC	DIFF	GPAC	DIFF	GPAC	DIFF
E	2-20	XXXX	2.20	XXXX	0.10	XXXX	0-10	XXXX

TAPE NO. 35		704 354 <b>.</b> 0		704 355•0		699 356.0	
INTERVAL 1	HR .	1HR	71	4R	11	uk	
U COMPONENT (M/SEC)							
LEVELIM) GPAC	DIFF GPAC		GPAC	DIFF	GPAC	DIFF	
GEO -10.41	0.01 1.67		1-67*		1.67*		
1000 1.95	-1.65 3.74		3.47	-0.13	3.74	0.15	
900 1.96	-2.02 3.75		3.74	-0.23	3.74	-0.23	
800 1.97	-1.90 3.76		3.76	-0.11	3.76	-0.11	
700 1.95	-1.30 3.74		3.74	0.49	3.74	0.49	
600 1.97	-0.55 3.76		3.75	1.22	3.76		
500 1.96*			3.75*		3.76*		
400 1.95		2.20	3.74		3.74	2.20	
300 1.78	0.72 3.57		3.57	2.52	3.57		
200 0-66	-2.23 2.45		2.45	-C.44	2.45	-0.44	
	-1.96 2.71		2.71	-0.19	2.71	-0.19	
32 -3.33			-1.54	-0.96	1.54	-0-96	
8 -4.33*	-4.78 -2.61	<b>*</b> -3.06	-2.60*	-3.05	-2.60*	-3.05	
V COMPONENT (M/SEC)							
LEVELIM) GPAC	DIFF GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	
GEO 8.75	0.01 -0.51	<b>+</b> -9.25	-0.51*	-9.25	-0.514		
1000 -0.58		1.26	1.30	1.30	1.26	1.26	
900 -0-56*	-1.63 1.28	0.21	1.28	0.21	1.28	0.21	
800 -0.57*	-1.98 1.27	-0-14	1.27	-0.14	1.27	-0.14	
7000.55*	-2.07 1.30	-0.22	1-30	-0.22	1.30	-0.22	
600 -0.53*	-2.30 1.31	-0.45	1.31	-0.45	1.32	-0.45	
500 -0.50	-3.40 1.31	-1.59	1.30	-1.6C	1.31	-1.59	
400 -0.49*		-1.31	1.35	-1.31	1.35	-1.31	
300 -0.47*	-3.37 1.37	-1-52	1.37	-1.52	1.37	-1.52	
200 -0.21*			1.63	0.57	1.64	0.58	
	2.63 3.42		3.42*		3.42*		
32 2.84			4.69	0.53	4.69		
8 2.49	-0.36 4.28	1-42	4.28	1.42	<b>√.27</b>	1.41	

#### CASE DPG 4 GPAC DUTPUT DATA

#### AIR TEMPERATURE AND VAPOR PRESSURE

TAPE NO. INTERVAL		3.0 HR		4.0 HR		5.0 HR		6 • 0 HR
		Al	R TEMPE	RATURE	(DEG C)			
TEAET( W)	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF	GPAC	DIFF
1000	22.57	-0.53	22.58	-0.52	22.57	-0.53	22.58	-0.52
900	23.15	-0.85	23.15	-0.85	23.15	-0.85	23.15	-0.55
800	23.90	-1.00	23.90	-1.00	23.90	-1.00	23.89	-1.01
700	24.43	-1.07	24.43	-1.07	24.44	-1.06	24.43	-1-07
600	15.06	-1.04	25.07	-1.03	25.06	-1.04	25.06	-1.04
500	25.71	-1.09	25.72	-1-08	25.72	-1.08	25.73	-1.09
400	26.24	-0.96	26.25	-0.95	26.25	-0.95	26.25	-0.95
300	26.63	-0.97	Z6-83	-0.97	26.84	-0.96	26.82	-0.98
200	26.58	-0.42	26.59	-G.41	26.59	-0.41	26.58	-0-42
100	25.59	0.69	25.59	0.69	25.59	0.69	25.59	0.69
32	24.72	1.12	24.73	1.13	24.72	1.12	24.72	1.12
8	22.21	0.21	22.21	0.21	22.21	J.21	22.21	0.21
2	18.08	-2.82	18.10	-2.80	18.10	-2.80	18-10	-2.80
0	13.91	XXXX	13.94	XXXX	13.75	XXXX	13.94	XXXX
			VAPOR P	RESSURE	(MB)			
LEVEL(M)	GPAL	DIFF	GP AC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	11.74	-0.04	14.74	0-04	11.73	-0.05	11.75	-0.63
900	12.17	0.04	12.16	0.03	12.16	0.03	12.17	0.04
008	12.64	0.01	12.54	0.01	12.64	0.01	12.65	0.0.2
700	13.75	0.67	13.74	0.66	13.74	0.66	13.75	0.67
600	13.56	0.18	13.56	0.18	13.55	0.17	13.56	0.18
500	14.03	0.25	14.03	0.26	14-02	0.25	14-03	0.26
400	14.61	0.52	14-60	0.51	14.59	0.50	14-61	0.52
300	15.92	0.52	15.02	0.52	15.02	0.52	15.02	0.52
200	15-54	2-46	15.54	2.46	15.54	2.46	15.55	2.47
100	15.79	5.81	15.79	5.81	15.77	5.79	15.79	5.81
32	14.62	7.91	14.63	7.92	14.63	7.92	14.63	7.92
8	13.72	7.05	13.73	7.06	13.73	7.06	13.73	7.06
.2	14.60	14.60	14.60	14.60	14.60	14.60	14.60	14.60
0	15.49	XXXX	15.49	XXXX	15.48	XXXX	15.48	XXXX

#### CASE GPG 4 GPAC UUTPUT DATA

#### MISCELLANEOUS VARIABLES

TAPE NO. INTERVAL		3.0 .HR		4.0 HR		5.0 HR		6.0 HR
		sot	L TEMPE	RATURE	(DEG C)			
LEVEL(M)	GPAL	DIFF	GPAL	DIFF	GP AC	DIFF	GPAC	DIFF
-0.0	15.23	-3.77	15.23	-3.77	15.23	-3.77	15.23	-3.77
-0.125	25.02	1.41	25.02	1.41	25.02	1.41	25.02	1.41
-0.250	25.93	1.99	25.93	1.99	25.94	2.00	25.93	1.99
-0.500	24.14	1.92	24-14	1.92	24.14	1.92	24.14	1.92
-1.000	20.74	1.74	20.75	1.75	20.75	1.75	20.75	1.75
-2.000	20.61	1.83	20.62	1.84	20.62	1.84	20.62	1.84
			wIND SP	EED (M	(SEC)			
TEAFT(W)	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF	GPAC	DIFF
ಕ	5.01	2.11	5.02		5.02	2.12	5.02	
2	2.52	0.82	2.52	0.82	2.52	0.82	2.52	0.82
	S	URFACE	EN ER GY	TERMS (	LY/SEL1	X1000		
PARAMETER	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
SIDI	1.28	0.38	1.28	0.38	1.28	0.38	1.28	0.38
R(N)	-0.59	XXXX	-0.59	XXXX	-0.60	XXXX	-0.59	XXXX
010.01	-0.37	XXXX	-0.40	XXXX	-0.40	XXXX	~0-40	XXXX
O(E.O)	0.16	XXXX	0.17	XXXX	0.17	XXXX	0.17	XXXX
0(5,0)	-0.37	XXXX	-0.36	XXXX	-0.36	XXXX	-0.36	XXXX
	SUR	FACE SH	EAR STR	ESS (DY	NES/LM	SQIXIO		
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
TAU	0.68	XXXX	0.74	XXXX	0.72	XXXX	0.74	XXXX
	INTEGR	ATED EV	APOTRAN	SPIRATI	ION (GM/	CH SQLX	100	
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
E	0.0	XXXX	0.10	XXXX	0.20	XXXX	0.20	XXXX

## CASE DPG 4 GPAC OUTPUT DATA

## VELOCITY COMPONENTS

KICH SC/	SEC) 74	4	729	•	-	754	100	599
TAPE NO.	357.	.0	358.0	)	359	.0	360	0.0
INTERVAL	188	₹	1HR		11	1R	1/	ΗR
		U	COMPONENT	[ {M/:	SECT			
LEVEL(M)		DIFF	• • • • • •	) IFF	GPAL	DIFF	GPAC	DIFF
GEO	1.67* 1			2.09			-10.40	0.02
1000		0.15		0.13	3.74	0.15	1.94	-1.65
900	-	-0.23		1.23	3.74	-0.23	1.92	-2.06
800		-0.11		11.	3.76	-0.11	1.85	-2.02
700	3.74	0.49		0.49	3.74	0.49	1.73	-1.53
600		1.23		1.23	3.75	1.22	1.58	-0.95
500		4.81		4.81		4.81		2.48
400	3.70	2.16		2.16	3.70	2.16	1.24	-0.30
300		2.39		2.40	3.45	2.40	1.06	0.0
200		-0.28		28	2.61	-0.28	0.85	-2.05
100		-0.60		0.60	2.30	-0.60	0-62	-2-28
32		-0.38		0.38	-0.96	-0.38		0.98
8	-1.80* -	-2.25	-1.81* -2	2-26	-1.80*	-2.25	0.27	-0.18
		V	COMPONENT	T (M/	SEC)			
LEVEL(H)	GPAC	DIFF	GP A C	DIFF	GP AC	DIFF	GPAÇ	DIFF
GEO	-0.51* -	-9.25	-0.51* -9	9.25	-0.51*	-9.25	8.79	0.05
1000	1.26	1.26	1.30	1.30	1.25	1.25	-0.58	-0.58
900	1-28	0.21	1.27	0.20	1.28	0.21	<b>~0.5</b> 4 <b>*</b>	-1.61
800	1.27 -	-0.14	1.27 -	0.14	1.27	-0.14	-0.49*	-1.90
700	1.30 -	-0.22	1.29 -	0.23	1.30	-0.22	-0.41*	
600	1.31 -	-0.45	1.31 -0	0.45	1.31	-0.45	-0.32*	-2.09
500	1.31 -	-1.59	1.31 -	1.59	1.31	-1.59	-0.22*	
400	1.36 -	-1.31	1.35 -	1.31	1.35	-1.31	-0.13*	-2.79
300	1.42 -	-1.48	1.42 -	1.48	1.42	-1.48	-0.03*	-2.93
200	1-80	0.74	1.79	0.73	1.80	0.74	0.03	-1.03
100	3.31*	4.37	3.31*	4.37	3.30*	4.36	0.08*	1.14
32	4.39	0.23	4.39	0-23	4.39	0.23	0.06	-4.10
8	4.03	1.18	4.03	1-18	4.04	1.18	0.03	-2.83

CASE DPG 4 GPAC OUTPUT DATA

## AIR TEMPERATURE AND VAPOR PRESSURE

TAPE NÜ. INTERVAL		57.0 LHK		8.0 .HR		9. U HR		C > O HR
		AI	R TEMPE	RATURE	(DEG C)			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	22.58	-0.52	22.58	-0-52	22.58	-0.52	23.06	-0.04
900	23.18	-0.82	23.19	-0.81	23.18	-0.62	24.01	0.01
800	23.92	-0.98	23.91	-0.99	23.91	-0.99	24.51	-0.39
700	24.48	-1.02	24.48	-1.02	24-48	-1.02	24.81	-0.69
000	25.09	-1.01	25.10	-1.00	25.10	-1.00	24.98	-1.12
500	25.71	-1.09	25.72	-1.08	25.72	-1.08	25.07	-1.73
400	26.24	-0.96	26.25	-0.95	26.24	-0.96	25.06	-2.14
300	26.66	-1.14	26.66	-1-14	26,66	-1.14	24.99	-2.81
200	26.46	-0.54	26.47	-0.53	26.47	-0.53	24.80	-2.20
100	25.63	0.73	25.63	0.73	25,63	0.73	24.44	-0.46
32	24.50	0.90	24.50	0.40	24.49	0.89	23.77	0.17
8	22.66	0.66	22.65	0.65	22.65	0.65	22.99	0.99
2	19.55	-1.35	19.53	-1.37	19.55	-1.35	21.21	0.31
0	16.40	XXXX	16.36	XXXX	16.41	XXXX	19.42	XXXX
			VAPOR P	RESSURE	: (M8)			
LEVEL(M)	GPAL	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	11.75	-0.03	11.74	-0.04	11.74	-0.04	12.03	0.25
900	12.19	0.06	12.19	0.06	12.19	0.06	12.72	0.59
800	12.72	0.09	12.72	0.09	12.72	0.09	13.17	0.54
700	13.62	0.54	13.62	0.54	13.61	0.53	13.56	0.48
600	13.66	0.28	13.65	0.27	13.65	0.27	13.86	0.48
500	14.07	0.30	14.07	0.30	14.06	0.29	14-18	0.41
400	14.57	0.48	14.56	0.47	14.56	0.47	14.46	0.37
300	15.03	0.53	15.02	0.52	15.02	0.52	14.77	0.27
200	15.45	2.37	15.44	2.36	15.44	2.36	15.04	1.96
100	15.61	5-63	15.59	5-61	15.59	5.61	15.42	5.44
32	14.85	8.14	14.84	8.13	14.84	8.13	15.78	9.07
8	14.71	8.04	14.71	8.04	14.71	8.04	16.13	9.46
2	16.30	16.30	16.28	16.28	16.30	16.30	16.80	16.80
0	17.91	XXXX	17.87	XXXX	17.91	XXXX	17.48	XXXX

# CASE DPG 4 GPAC DUTPUT DATA

# MISCELLANEOUS VARIABLES

TAPE NO. INTERVAL		7.0 .HR		58±0 LHR		9.0 HR		0.0 HR
		102	L TEMPE	RATURE	(DEG C)			
TEAET(W)	<b>LPAC</b>	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
-0.0	19.52	0.52	19.51	0.51	19.52	0.52	21.53	2.53
-0-125	25.38	1.77	25.38	1.77	25.38	1.77	25.53	1.92
-0.250	25.54	2.00	25.94	2.00	25.94	2.00	25.94	2.00
-0.500	24-14	1.92	24.14	1.92	24.14	1.92	24.16	1.94
-1.000	20.75	1.75	20.75	1.75	20.75	1.75	20.75	1.75
-2.000	25.89	7.11	25.89	7.11	25.89	7.11	25.90	7.12
			wIND SP	PEED (M/	SECI			
LEVEL(M)	GPAC	DIFF	GPAU	DIFF	GPAC	DIFF	GPAC	DIFF
8	4.43	1.53	4.44	1.54	4.43	1.53	0.33	-2.57
2	2.23	0.53	2.23	0.53	2.23	0.53	0.17	-1.53
	S	URFACE	ENERGY	TERMS (	LY/SEC.	x1000		
PARAMETE	R GPAC	DIFF		DIFF	GPAL	DIFF	GPAC	DIFF
S(D)	1.28	0.38	1.25	0.35	1.28	0.38	1.26	0.35
R(N)	-0.88	XXXX	-0.88	XXXX	-0.87	XXXX	-1.26	XXXX
0(0,0)	-0.32	XXXX	-0.31	XXXX	-0.32	XXXX	-2.69	XXXX
Q(E,0)	034	XXXX	0.32	XXXX	0.34	XXXX	2.05	XXXX
0(5.0)	-0.89	XXXX	-0.89	XXXX	-0.89	XXXX	-0.60	XXXX
	SUF	RFACE SH	EAR STR	LESS (DY	NES/CM	201X10		
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
IAU	0.70	XXXX	0.66	XXXX	0.68	XXXX	0.74	XXXX
	INTEGR	RATED EV	APOTRAN	SPIRATI	ON (GM/	CM SQ) X	1 00	
PAR AMETE	R GPAC	DIFF	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF
E	0.30	XXXX	0.20	XXXX	0.20	XXXX	1.30	XXXX

#### LASE DPG 4 GPAC OUTPUT DATA

## VELOCITY COMPONENTS

KICH SU/S	SEC) 106	94		694		699	1 06	
TAPE NO.	361	.0	36	2.0	363	3.0	364	. 0
INTERVAL	1+	1R	11	HŔ	11	HR	<u>ì</u> t	IR.
		i	COMPON	ENT (M)	/SEC)			
TEAET (W)	GPAC		GP A C	DIFF		DIFF	• –	DIFF
			-10.40		-10.40		-10.40	0.02
1000	0.95	_	1.95	-1.65	1.95	-1.65	0.93	-2.67
900	1.83	-2.1.	1.92	-2.06	1.92	-2.06	1.81	-2-17
800	1.87	-2.00	1.84	-2.03	1.85	-2.02	1.82	-2.05
700	1.69	-1.57	1.73	-1.52	1.73	-1.53	1.72	-1.54
600	1.57	-0.96	1.59	-0.94		-0.94	1.58	-0.95
500	1.41*	2.47	1.42*	2.48	1.42*	2.48	1.42*	
400	1.24	-0.30	1.24	-0.30	1.25	-0.29	1.24	
300	1.06	0.0	1.06	0.0	1.06	0.0	1.06	0.01
200	0.85	-2.05	C.85	-2.05	0.85	-2.05	0.85	-2-05
001	0.62	-2.28	0-63	-2.27	0.63	-2.27		
32	0-40*	0.98	C.40*	0.98	0.40*	0.98	C.40*	0.98
8	0.27	-0.18	0.27	-0.18	0.27	-0.18	0.28	-0.17
		·	COMPONI	ENT (M.	/SEG)			
		•						
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
6E D	0.31	-8.42	8.74	0.00	8.74	0.00	8.74	0.00
1000	0.22	0.22	-0.58	-0.58	-0.58	-0.58	-0.46	
900	0.12	-0.95	-0.54*	-1.61	-0.54*	-1.61	-0.52*	-1.59
800	0.03	-1.37	-0.49*	-1.90	-0.49*	-1.90	-0.48*	-1.89
700	-0.03*	-1.55	- C.40*		-0.42*	-1.94	-0.415	-1-93
690	-8.74*-		-0.32*		-0.30*		-0.32*	-2.09
500			-0.22*	-3.12	-0.21*	-3.11	-0.22*	-3.12
400		-2.14	-0.13*		-0.11*	-2.78	-0.13*	
300		-2.41	-0.03*		-0.02*	-2.92	-0.03*	
200	0.40	-0.65	0.03	-1.03		-1.02	0.03	-1.03
100	0.08*			1.14		1.15	0.08*	
32	0.06	-4.10		-4.09		-4.07	0.06	-4-10
8	0-03		0.03		-0.01*		0.03	

#### CASE DPG 4 GPAC UUTPUT DATA

#### AIR TEMPERATURE AND VAPOR PRESSURE

TAPE NO. Interval		1.0 .HR		2.0 HR		3.0 HR		4.0 HR
		AI	R TEMPE	RATURE	(DEG C)			
LEVEL(M)	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	23.05	-0.05	23-06	-0-04	23.01	-0.09	23.03	-0.07
900	24.01	0.01	24.01	0.01	24.53	0.53	24.58	0.58
800	24.52	-0.38	24.51	-0.39	24.43	-0.47	24-45	-0.45
700	24.81	-0.69	24.81	-0.69	25.19	-0.31	25.22	-0.28
600	24.98	-1.12	24.97	-1.13	24.93	-1.17	24.94	-1-16
500	25.07	-1.73	25.06	-1.74	25.38	-1.42	25.41	-1.39
400	25.06	-2.14	25.05	-2.15	24.93	-2.27	24.95	-2.25
300	24-97	-2.83	24.99	-2.81	24.86	-2.94	24.87	-2.93
200	24.79	-2.21	24.78	-2.22	24.62	-2.38	24-62	-2-38
100	24.43	-0.47	24.43	-0-47	24.18	-0.72	24-19	-0.71
32	23.75	0.15	23.74	0.14	23.11	-0.49	23.09	-0.51
8	22.95	0.95	22.94	0.94	22.53	0.53	22.54	0.54
2	21.18	0.28	21.17	0.27	20.41	-0.49	20.41	-0.49
0	19.41	XXXX	19.40	XXXX	18.28	XXXX	18.28	XXXX
			VAPOR P	RESSURE	(MB)			
TEAET( W)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
1000	12.04	0.26	12.04	0-26	12.05	0.27	12.04	0.26
900	12.74	0.61	12.73	0.60	12.73	0.60	12.73	0.60
800	13.18	0.55	13.18	0.55	13.18	0.55	13.17	0.54
700	13.56	0.48	13.56	0.48	13.55	0.47	13.55	0.47
600	13.87	0.49	13.87	0.49	13.86	0.48	13.86	0.48
500	14.19	0.42	14.21	0.44	14.17	0.40	14-16	0.39
400	14.47	0.38	14.47	0.38	14.43	0.34	14.43	0.34
300	14.77	0.27	14-79	0.29	14.72	0.22	14.73	0.23
200	15.05	1.97	15.05	1.97	14.98	1.90	14.98	1.90
100	15.43	5.45	15-43	5.45	15.33	5.35	15.34	5.36
32	15.80	9.09	15.80	9-09	15.65	8.94	15.65	8.94
8	16.15	9.48	16.16	9.49	15.94	9.27	15-94	9.27
2	16.81	16.81	16.81	16.81	16.47	16.47	16.47	16.47
0	17.47	XXXX	17.47	XXXX	17.01	XXXX	17.01	XXXX

## CASE DPG 4 GPAC DUTPUT DATA

# MISCELLANEOUS VARIABLES

TAPE NO. INTERVAL	-	51.0 LHR		52.0 LHR		3.0 HR		4.0 HR
		501	L TEMP	ERATURE	(DEG C)			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF
-0.0	21.51	2.51	21.52	2.52	16.69	-2.31	16.70	-2.30
-0.125	25.54	1.93	25.53	1.92	25.06	1.45	25.05	1.44
-0.250	25.95	2.01	25.95	2.01	26.14	2.20	26.15	2.21
-0.500	24.16	1.94	24-16	1.54	24.14	1.92	24.14	1.92
	20.75				20.92	1.92		1.94
	25.90	7.12	25.90	7.12				
			WIND SE	PEED (M.	SECI			
LEVEL(N)	GPAC	DIFF	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF
8	0.34	-2-56	0.34	~2.56	0.34	-2.56	0.34	-2.56
2		-1.53	0.17		0.17			
	•	SURFACE	ENERGY	TERMS	(LY/SEC)	X1000		
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
SIDI	1.27	0.37	1.28	0.38	1.26	0 <b>. 36</b>	1.25	0.35
R(N)	-1.25	XXXX	-1.25	XXXX	-1.15	XXXX	-1.15	XYXX
0(0,0)	-2.69	XXXX	-2.68	XXXX	-3.26	XXXX	-3.25	XXXX
LILE.O.	2.05	XXXX	2.04	XXXX		XXXX	1.67	XXXX
0(5.0)	-0.60	XXXX	-0.60	XXXX	0.46	XXXX	0.46	XXXX
	SUF	RFACE SH	IEAR STA	RESS (D	YNES/CM	201X10		
PARAMETE	R GPAC							
TAU	0.74	XXXX	0.74	XXXX	0.74	XXXX	0.74	XXXX
	INTEG	RATED EV	APOTRA	NSPIRAT.	ION (GM/	CH SQLX	100	
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF
E	1.40	XXXX	1.30	XXXX	1.10	XXXX	1.10	XXXX

# CASE DPG 4 GPAC OUTPUT DATA

# VELOCITY COMPONENTS

	SEC1 106	94	100	694	10	694	100	594
TAPE NO.		-0	366	6.0	36	7.0	36	8.0
INTERVAL	111	R	11	HR	1	HR	14	AR.
		U	COMPON	ENT (M/	SECI			
	GPAC							DIFF
					1.66*	12.08	1.67*	12.09
		-1.65	3.74	0.14	3.51	-0.09	3.74	0.14
900		-2.06	3.71	-0.27	3.68	-0.30	3.71	-0.27
008	1.84		3.63		3.63	-0.24	3.63	-0.24
700	1.73 -		3.51			0.26		0.26
					3.37			0.84
	1.42*	2 • 48	3.21*	4.27	3.21*	4.27	3.21*	4.27
400	1.24	-0.30	3.02	1-48	3.02	1.48	3.02	1.48
300					2.82	1.77	2.82	1.77
200			2.59			-0.31	2.59	-0.31
100			2.30		2.30		2.30	-0-60
32	0.40*		1.93*	2.51	1.93*	2.51	1.93*	2.51
8	0.27	-0-18	1.56	1.11	1.56	1-11	1.56	1.11
			COMBONO	- N. <del>T.</del> . J. M. J	5 <b>5</b> 5 1			
		٧	COMPONE	INI LM/	SECI			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
GEO	8.74	0.00	-0.51*	-9.25	-0.51*	-9.25	-0.51*	-9.25
1000	-0.58	-0.58	1.26	1.26	1.30	1.30	1.26	1.26
900	-0.54* -				1.31			
800	-0.49* -		1.35	-0.06	1.36	-0.05	1.35	-0.06
700	-0.41* -	-1.93	1.44	-0.07	1.44	-0.08	1.44	-0.07
600	-0.32* -		1.53	-0.24	1.53	-0.23	1.53	-0.24
500	-0.22* -	-3.12	1-62	-1.28	1.62	-1.28	1.62	-1.27
400	-0.12* -	-2.79	1.74	-0.92	1.71	-0.95	1.71	-0.96
300	-0.03* -	-2.93	1.79	-1.11	1.79	-1.11		-1.11
200	0.03	-1.02	1.84	0.78		0.78		
100	0.08*	1.14	1.83*	2.89		2.89		
32	8.05 -	-4.10	1.67	-2.49	1.67	-2.49		
8	0.03 -	-2.83	1.38	-1-48	1.39	-1-47	1.38	-1.48

# CASE DPG 4 GPAC DUTPUT DATA

## AIR TEMPERATURE AND VAPOR PRESSURE

TAPE NO. INTERVAL		5.0 HR		6.0 HR		7.0 HR	-	8.0 HR
		AI	R TEMPE	RATURE	(DEG C)			
TEAET(W)	GPAC	DIFF	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF
1000	23.01	-0.09	23.05	-0.05	23.06	-0.04	23.06	-0-04
900	24.56	0.56	24.02	0.02	24.00	0.0	24.02	0.02
800	24.43	-0.47	24.51	-0.39	24.51	-0.39	24.50	-0.40
700	25.23	-0.27	24-79	-0.71	24.80	-0.70	24.79	-0.71
600	24.93	-1.17	24.93	-1.17	24.93	-1.17	24.93	-1.17
500	25.41	-1.39	25.0C	-1.80	25.01	-1.79	25.00	-1.80
400	24.94	-2.26	24.96	-2.24	24.97	-2.23	24.97	-2-23
300	24.90	-2.90	24.85	-2.95	24.86	-2.94	24.85	-2.95
200	24.62	-2.38	24.61	-2.39	24.62	-2.38	24.62	-2.38
100	24.19	-0.71	24.17	-0.73	24.17	-0.73	24.18	-C.72
32	23.08	-0.52	23.31	-0.29	23.32	-0.28	23.32	-0.28
8	22.54	0.54	22-40	0.40	22.40	0.40	22.41	0.41
2	20.41	-0.49	20.31	-0.59	20.31	-0.59	20.32	-0.58
0	18.27	XXXX	18.18	XXXX	18.18	XXXX	18-18	XXXX
			VAPOR P	RESSURI	E (MB)			
LEVEL(M)	GPAC	DIFF	GPAC	DIFF	GP AC	DIFF	GPAC	DIFF
1000	12.03	0.25	12.04	0.26	12.04	0.26	12.04	0.26
900	12.72	0.59	12.74	0.61	12.74	0.61	12.72	0.59
800	13.16	0.53	13.17	0.54	13.17	0.54	13.17	9.54
700	13.54	0.46	13.56	0.48	13.55	0.47	13.55	0.47
600	13.86	0.48	13.85	0.47	13.86	0.48	13.85	0.47
500	14.17	0.40	14.18	0.41	14.17	0.40	14-17	9-40
400	14.43	0.34	14-43	0.34	14-43	0.34	14.43	0.34
300	14.72	0.22	14.72	0.22	14.72	0.22	14	0.22
200	14.97	1.89	14.98	1.90	14.98	1.90	14.98	1.90
100	15.33	5.35	15.33	5.35	15.33	5.35	15.33	5.35
32	15-65	8.94	15.65	8.94	15.65	8.94	15.64	8-93
8	15.94	9.27	15.94	9.27	15-94	9.27	15.93	9.26
2	16.47	16.47	16-45	16.45	16.45	16.45	16.44	16.44
0	17.01	XXXX	16.98	XXXX	16-97	XXXX	16.97	XXXX

#### CASE DPG 4 GPAL DUTPUT DATA

#### MISCELLANEOUS VARIABLES

TAPE NO. INTERVAL	-	65.0 1HR	_	66.0 IHR	_	7.0 HR		8.0 HR
		sol	L TEMP	ERATURE	(DEG C)			
TEAET(W)	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
-0.0	16.69	-2.31	16.63	-2.37	16.63	-2.37	16.62	-2.38
-0.125	25.05	1.44	25.08	1.47	25.08	1.47	25.08	1.47
-0.250	26.14	2.20	25.93	1.99	25.93	1.99	25.93	1.99
-0.500	24.13	1.91	24.15	1.93	24.14	1.92	24-14	1.92
-1.000	20.94	1.94	20.74	1.74	20.74	1.74	20.74	1.74
-2.000	20.62	1.84	20.62	1.84	20-62	1.84	20-61	: 93
			WIND SE	PEED (M.	/SEC)			
LEVEL(M)	GPAC	DIFF	GP AC	DIFF	GPAC	DIEF	GPAC	DIFF
8	0.34	-2.56	2.08	_	-			-0.81
2	0.17		1.05		1.06	-0.64		-0.64
	;	SURFACE	ENERGY	TERMS	(LY/SEC)	X1000		
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAL	DIFF
SIDI	1.29	0.39	1.27	0.37	1.28	0.38	1.28	0.38
R(N)	-1 - 13	XXXX	-1.14	XXXX	-1.14	XXXX	-1.14	XXXX
010.01	-3.26	XXXX	-3.19	XXXX	-3.20	XXXX	-3.20	XXXX
Q(E,0)	1.67	XXXX	1.62	XXXX	1.62	XXXX	1.62	XXXX
015.01	0.46	XXXX	0.45	XXXX	0.45	XXXX	-0.45	XXXX
	SU	RFACE SI	HEAR STA	RESS (D	YNES/CM	SQLXIO		
PARAMETE	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
TAU	0.72	XXXX	4.72	XXXX	4.70	XXXX	4.70	XXXX
	INTEG	RATED EV	/APOTRA!	NSPIRAT	ION (GM/	CM SQ1X	100	
PARAMET E	R GPAC	DIFF	GPAC	DIFF	GPAC	DIFF	GPAC	DIFF
E	1.20	XXXX	1.10	XXXX		XXXX	1.00	XXXX

II. Assessment of the Solutions and Initial Data Collection Activities.

The four sets of data which were collected at Dugway have been used as initial input values for the set of equations presently simulating the lower 1000 m of the atmosphere. These equations have been solved under various assumptions in order to assess the importance of the various terms in the system of equations. The diverse solutions that have been obtained have been herein referred to by tape numbers; therefore, each tape represents the solutions under a different set of assumptions. The primary purpose of running the various tapes under these assumptions is to compare the results obtained by various circuits in the model and their importance in the set of equations.

Previously, the only initial data available for study was that data collected in the Dallas Tower Network at Cedar Hill, Texas.

This data utilized Stations A and B and data taken from a 500 m tower which was instrumented by the University of Texas. Eleven test cases were selected from these data and solutions were obtained under a number of simplifying assumptions. A rather extensive set of solutions for these input conditions was obtained in 1966. As a result of this study, additional insight was gained into the importance of various terms in the equations and some of the difficulties involved in the present solution. A number of important inferences resulted. First, the solutions indicated that a number of variables in the equations were scaled improperly

on the GPAC. This problem was easily alleviated by simply rescaling the pertinent variables; however, a major limitation in the LLMM was made manifest in the form of the exchange coefficient relationship at 8 m. Solutions obtained from the four data sets collected at Dugway Proving Ground further substantiate these conclusions. These solutions indicate a lack of adequate scaling in the stresses, the convective heat flux, and the evaporative heat flux in the lowest 200 m of the atmosphere. In addition, difficulties were encountered in the calculation of  $K_{m,8}$ . A major difficulty in this regard was the very small wind speed which occurred at times at the 8 m level. This difficulty no doubt is partly sue to the inadequacy of the forecast values for the surface contour gradients, since the gradient in this particular was ill-defined both in magnitude and direction. Occasionally, a wind speed at the 8 m level is too low to place the GPAC in RESET mode. In other cases, the GPAC initially may be put into RESET but after the solution begins the wind speed decreases rapidly and attempts to pass through zero. This decreased wind speed causes the amplifiers in the  $K_{m,8}$  computing loop to go into overload and compute improperly.

Perusal of the tape log indicates a number of tapes which were not run. Many of these were due to inadequate scaling in the problem. In order to run these, the fluxes of convective and evaporative heat will have to be rescaled in the lowest 200 m. Overloading of amplifiers in the  $K_{m,8}$  computing loop was mainly encountered with Data Set DPGO3 for which numerous tapes do not appear in the tape log.

In this case, merely rescaling is not an adequate solution to the problem but a redefinition of the  $K_{m,8}$  variables is necessary. On the surface, at least, the adoption of the modified Deacon profile appears to be the most likely solution for an adequate expression of the momentum exchange coefficient at 8 m. A supplementary patchboard for the GPAC has been wired for Console 3 which will contain the  $K_{m,8}$  expression obtained from the modified Deacon wind profile. In some instances, solution runs have been omitted from the report in order to maintain a standard format of four solutions per page. In other words, in a particular case, all tape numbers in excess of the largest number divisible by 4 were not included in the report. If the number of tapes were exactly divisible by 4, then all the tapes were included.

Emphasis must be placed on the fact that the difference between the GPAC solutions and observed values shall not necessarily be considered as the main criteria for the quality of the system of equations whether differences obtained are large or small. The values of the winds, temperatures, and vapor pressures observed at Dugway certainly should be treated as the standard comparison; however, there are many other considerations involved in obtaining a set of solutions. What is most important at this point is the differences obtained between various assumptions under which the system of equations have been solved for the same solution intervals, since the main concern of the whole research effort is directed towards improving the meteorological relationships employed for

simulating the lower atmosphere. Of course, refinement of the equation system is guided by the difference; obtained between the GPAC solutions and the observed values, but the matter of obtaining portions of the input data must be born in mind. For example, the surface contour gradient obtained from synoptic surface charts is quite difficult to determine under conditions of very flat pressure gradients where the direction and magnitude of the pressure gradient is ill-defined. This observation in no way implier any inadequacy in the scale of the analyst or forecaster in determining pressure gradients, but only goes to point out the complexity of the pressure pattern in mountainous areas. Pressure gradients were determined from pressures reduced to main sea level which, necessarily, result in fictitious values of indicated pressures. This problem is an old one in meteorology but must be taken into consideration in practical simulation and testing programs. In mountainous areas, elevations of the observing station vary sharply so that the pressure comparisons between stations is extremely difficult. As a result of this variation, fictitious pressure patterns occur in synoptic analyses. Such a pressure field may indicate the pressure gradient to lie in a direction far removed from the true pressure gradient direction and its magnitude may be considerably larger than the magnitude of the true pressure gradient. One might suppose that the employment of altimeter settings in lieu of pressure values at mean sea level would present a truer picture of the pressure distribution; however, in practice comparisons made between pressure fields obtained from mean sea level pressure values and the pressure field obtained from altimeter settings indicates no large significant difference in the direction or magnitude of the pressure gradients.

In addition to the difficulties encountered in attempting to determine pressure gradient values from mean sea level values of station pressure, problems are encountered in assessing the input data to the GPAC. In particular the tower from which the low level winds, temperatures, and vapor pressures were obtained, that is, the value 32 m and below, were taken at a point approximately one mile from the base of a 7,000 foot mountain peak while the radiosonde observations were taken at a site approximately 15 miles east of the tower in a relatively flat area on the opposite side of the valley. Since mountain and valley breezes normally predominate in this area, it is most likely that the ground based tower and the radiosonde observations may have been taken in entirely different wind-flow regimes. In either case, the wind flow in these areas was associated with the immediate surrounding terrain which consisted of mountain peaks and ridges having different orientations and different slopes relative to the two locations. In order to obtain input data for solution on the GPAC, the data from this tower and the radiosonde data were combined as though they were taken at one particular location; however, the acceptance of data from the ground based tower to be used as initial input for the GPAC solution was based not necessarily on the testing of the model itself but was based on the idea of testing the entire system of data collection, and processing of the digital program which converts the data into GPAC form.

evaluation but also provided GCA Corporation an opportunity to test out their data collecting and assimilating data reduction facility. This was the first opportunity that GCA Corporation had had to test their data reduction system under operational conditions. This period has been employed mainly for the setting up of proper procedures for collection of data at Dugway, for processing of this data, and for coding and transmitting the data to Texas A&M. In addition, it has provided an opportunity for project personnel to test the F2 digital program for proper analysis of input data on an operational basis. A few minor insidequacies discovered in the F2 digital program were eliminated during the processing pc iod and corrected and the data reprocessed before being put on the GPAC for solution.

#### III. Engineering Modifications for the GPAC

Engineering modifications for the GPAC have been mainly devoted to the maintenance activities. In this regard, all relay sockets throughout the entire four consoles normally used for solution of the LLNM including those relay sockets in the integrated control units and behind the panel containing the potentiometers were inspected and numerous bent relay socket pins were located and replaced. Since these pins transmit signal voltages, pc.

contact resistance may introduce extraneous noise into the problem system being studied, or poor pin contact may prevent the passage of proper signals through the relay. Because of the large volume of pins involved, this process was quite tedious and time consuming.

A complete check was made of the servo multipliers and servo resolvers. This check indicated that a complete overhaul of the computing potentiometers in these units was required. Various repairs were required. Worn bearings were replaced. Some gear trains were binding slightly and had to be either adjusted or replaced. Many of the wiper arms on the potentiometers were very badly worn and were introducing extraneous noises into problem solutions. A number of new potentiometers were obtained from Hybrid Systems, Inc. to replace the malfunctioning potentiometers. In addition, wiper arms were bought for those potentiometers for which the winding was still in good condition. In these cases, the wiper arms only were changed on the potentiometers and they were completely cleaned and lubricated.

Difficulty was encountered with the electronic quarter square multipliers obtained from Hybrid Systems, Inc. The basic nature of the difficulty encountered was that the multipliers would not maintain their required specifications for any sustained perio' of time. In order to rectify this difficulty, all of the multipliers and their associated amplifiers were returned to Hybrid Systems, Inc. and checked and properly adjusted on their test bench. As suspected, approximately 75% of the components of

these multipliers were outside their specifications.

Approximately fifteen amplifier balancing potentiometers were replaced for the individual amplifiers in the four consoles. In addition, the failure alarm for the oven which contains integrator capacitors on Console 5 was discovered to be inoperative. This was determined to be due to improper wiring in the alarm circuits so corrective wiring was installed. No further progress has been made on the complex component test jig since we are awaiting the arrival of precision parts required for the completion of this unit.

Work continues on the modification of the basic amplifiers used in the computer seeking to avoid some of the problems known to be associated with the basic amplifier now in use. Specifically, these problems consist of high noise levels on the outputs of these amplifiers with zero input voltage when the amplifiers are being used in the summer mode. Three cycle oscillation is frequently encountered with these amplifiers and large spikes exist on cutput of the chopper amplifier. Four chassis, which contain 8 amplifiers, have been modified and are awaiting testing. If tests indicate that this is a good amplifier design then the other amplifiers in the consoles will be converted to this configuration on a time available basis rather than as a crash program since the amplifiers now in the function satisfactorily under most conditions.

TROL DATA - R & D g amnotation must be entered whe	RT SECU	rall report to closeffied) RITY CLASSIFICATION
2a. REPO	RT SECU	
		RITY CLASSIFICATION
26. GROU	P	
26. GROU	P	
Meteorological Pred	iction	Capability
to 16 November 1969	1	
	<u> </u>	<del></del>
74. TOTAL NO. OF PAGES	76.	NO. OF REFS
M. ORIGINATOR'S REPORT	NUMBER	(8)
Reference 68-25	<b>-</b> T	
1		
<b>[</b>		
	Any other	numbers that may be assigned
- ·		
U. S. Army Elec	troni	cs Command
		<del></del>
r, four sets of data days in August 1969 system for these in with observed data hese solutions corre	at Dunitial are conborate	h 12 hours gway Proving conditions ntained in e those
	Se. ORIGINATOR'S REPORT Reference 68-25  Sect to special exporreign nationals may ommand, Fort Monmouth, AMSEL-BL-FM-T  m of equations currer, four sets of data days in August 1969 system for these in with observed data shese solutions corre	86. ORIGINATOR'S REPORT NUMBER Reference 68-25-T  86. OTHER REPORT NO(8) (Any other this report)  ECOM-0280-3  ect to special export contreign nationals may be madommand, Fort Monmouth, New Jensey Electronic Fort Monmouth, New Jensey

Security Classification

(PAGE 1)

S/N 0101-807-6801

	KEY WORDS	LIN	LINK B LINK		K C		
	net Honos	ROLE	WT	ROLE	WT	ROLE	w
	<b>M</b> •						
1.	Meteorology			ļ			
2.	Meteorological Simulator						
3.	Dept. of the Army Contract No. DAAB07-68-C-0280						
			( (		•		
			1				
				;			
		-		:			
				:			
		1 1	ı i			1 1	

DD FORM 1473 (BACK)
(PAGE 2)

Security Classification